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COMMITTEE ON THE PEACEFUL USES OF OUTER SPACE

VERBATIM RECORD OF THE TWO HUNDRED AND TWENTIETH MEETING

Held at Headquarters, New York,
on Wednesday, 24 June 1981, at 3 p.m.

Chairman: Mr. JANKOWITSCH (Austria)

later: Mr. MARINESCU (Romania)
(Vice-Chairman)

General exchange of views (continued)

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The meeting was called to order at 3.20 p.m.

GENERAL EXCHANGE OF VIEWS (continued)

Mr. CHAMBERLAIN (United Kingdom): Mr. Chairman, my delegation would like first of all to take this opportunity to express its satisfaction at seeing you once again presiding over the Committee at this session. We should like to pay a tribute to the work of the Bureau of the Committee, the Chairmen of our two Sub-Committees and the Chairmen of the Working Groups established by those Sub-Committees over the past year. Last but not least, my delegation would like to express a special welcome to Mr. Yash Pal as Secretary-General of UNISPACE-82.

Since the Committee's last meeting, the United States and the Soviet Union have continued to lead the way in the exploration of outer space. Their missions have permitted us to continue to develop substantial knowledge of our own planet and a number of others in the solar system. Moreover, progress in space technology has brought direct benefit to people in their ordinary lives - for example, in the fields of telecommunications, remote-sensing and meteorology. My delegation takes particular pleasure in welcoming the success of the third experimental launching in the series of Ariane launches, which took place on 19 June. We also must congratulate the United States for the magnificent step forward it has taken in the exploration and use of outer space in the successful launching of the Space Shuttle Columbia.

A particularly important characteristic of space activities is the international aspect whereby space systems can provide services for an international community rather than being restricted by national boundaries. This international dimension provides an opportunity for all countries, even those of modest means, to meet their requirements in the areas of communications, earth observation and navigation by becoming participants in the global network of activities, thus benefiting from the considerable investment which has made those systems possible. As representatives will be aware, the United Kingdom is an active contributor to the international space effort. I shall not go into detail on that contribution, which will be well known to members of this Committee.

(Mr. Chamberlain, United Kingdom)

I do, however, wish to make a few remarks regarding the United Kingdom national programme. In that regard I would mention the satellites ARIEL-5 and ARIEL-6, which are the most recent missions. ARIEL-5, an X-ray astronomy satellite, provided data over a period of five and a half years until its re-entry into the earth's atmosphere in February 1980. The scientific payload consisted of five experiments from the United Kingdom and one from NASA. ARIEL-6, launched in June 1979, provides for a continuation of the X-ray astronomy mission and complements the United Kingdom instruments on NASA's COPERNICUS satellite. A cosmic ray experiment and space technology experiments are also included in that mission.

The International Ultraviolet Explorer is a joint ESA-NASA-United Kingdom project launched in January 1978, and it continues its successful observations of ultraviolet spectra of astronomical sources. Analysis of the technical capability of the mission suggests that operations can be continued until 1984 or 1985. The mission has been used to observe most types of astronomical objects, from planets and moons of the solar system to stars, interstellar media, galaxies and quasars. A further experiment, the Infra-Red Astronomical Satellite, a joint project with the United States and the Netherlands, will be launched in 1982. During its lifetime in orbit the mission will conduct the first complete infra-red survey of the sky.

Through its membership in the European Space Agency (ESA), whose Convention formally entered into force on 30 October 1980, the United Kingdom participates actively in the scientific programmes of the Agency. Our current involvement relates to the International Sun-Earth Explorer mission and the GEOS-2 mission. Future missions in which the United Kingdom will be involved include the EXOSAT, scheduled for launch in 1982, the first Spacelab payload, the International Solar/Polar Mission and the recently approved missions HIPPARCOS and GIOTTO.

The United Kingdom looks forward to further collaboration and co-operation in space science activities. As an ESA member State, the United Kingdom is participating in the development of the NASA Space Telescope Project for launch in 1985. That mission, which has an operational lifetime of 15 years, is expected to result in greatly improved astronomical observations and will be one of the most important scientific missions of the decade.

(Mr. Chamberlain, United Kingdom)

The experience of the United Kingdom in space science activities has shown that international collaboration on multilateral and bilateral bases can provide the means whereby the scientific community participates in space projects of the highest scientific interest. Such collaboration arises both through the policy pursued by the agencies responsible for sponsoring scientific space activities and through the exchanges of ideas and information among individual scientists facilitated by such bodies as the Committee on Space Research (COSPAR).

In common with many other States the United Kingdom has established a National Remote Sensing Centre which, together with other United Kingdom Government organizations and commercial companies, aims to develop remote sensing techniques to enable remotely sensed data from space to be applied in useful ways relevant to the interests and requirements of all.

The United Kingdom is a participant in the European Space Agency's Remote Sensing Preparatory Programme, which is concerned with the activities leading up to the definition of the Agency's ERS-1 oceanographic programme. It is envisaged that the data provided by that programme will be available to interested users on a world-wide basis. This should provide a major contribution to the understanding of oceanographic processes and lead to applications of economic and commercial importance for offshore industries such as fisheries management and wind and wave forecasting.

(Mr. Chamberlain, United Kingdom)

The United Kingdom is the major participant in the European Space Agency's Large Satellite (L-SAT) programme. The objectives of this programme are to develop and demonstrate a large multi-purpose platform able to satisfy the range of foreseen future missions requirements on a cost-effective basis. The programme will also develop communications payload hardware related to future missions and in-orbit demonstrations of new types of communications systems to stimulate the introduction of new satellite-based services and techniques.

United Kingdom industry is a major participant in the European Communications Satellite (ECS) based on technology developed by the European Space Agency, which will be used by EUTELSAT, a regional entity composed of European postal administrations to develop a European regional communications satellite system. We are also a major participant in the MARECS satellites developed from the ECS. Two MARECS satellites will have been launched by 1982 by the European Ariane launcher and will be dedicated to maritime telecommunications over ocean areas. These satellites, each of which will have the capacity of 50 channels, will provide direct connexions to subscribers for both telephony and telex and will enable ship-to-shore search and rescue messages to be relayed more quickly. The complete INMARSAT system will cover the Atlantic, Pacific and Indian Oceans and will combine the MARECS satellites, INTELSAT V satellites equipped with maritime communications payloads and the MARISAT satellites that are already

Turning to the work of the Outer Space Committee, my delegation feels that the Committee's task at this session should be to consolidate the work which has been accomplished by the two Sub-Committees this year. The United Kingdom, as in previous years, will adopt a constructive approach. Our comments on specific items on the agenda are as follows.

(Mr. Chamberlain, United Kingdom)

First, on the Second United Nations Outer Space Conference, we believe that practical progress on the preparations for the Second United Nations Conference on Outer Space will be achieved this year. I hope that it will not be necessary for the Committee to dwell for too long on essentially procedural questions such as the staffing of the Committee secretariat. My delegation understands that there is a compromise proposal which would protect the interests of us all. It would be unfortunate if such technical questions were to impede the otherwise constructive approach which has been adopted by this Committee in the lead-up to UNISPACE-82. The Secretariat has already paved the way with valuable preparatory work, as has the Scientific and Technical Sub-Committee, which has acted as our Advisory Committee. The United Kingdom has participated with other member States of the European Space Agency in drawing up a joint paper which will be submitted to the Secretariat.

With regard to remote sensing, the United Kingdom regrets that at the meeting of the Legal Sub-Committee earlier this year there was again little progress in the discussions of a set of principles on remote sensing of the earth by satellites. In the view of the United Kingdom, this is an important application of space technology which can have a direct effect on people and the quality of their life. We must continue our efforts to reach agreement and thus ensure that what is eventually agreed in this forum is of direct benefit to all.

With regard to the question of nuclear power sources in outer space, there has been some progress in the area of this subject this year, in particular, through the establishment of a Working Group under the chairmanship of Mr. Bueno, the Rapporteur of our Committee. But we must not forget that we have a responsibility to protect our fellow citizens from some potentially adverse consequences of space exploration and activities which might, for example, involve space accidents and the uncontrolled re-entry of space debris.

(Mr. Chamberlain, United Kingdom)

There remains considerable scope for refining existing law in this area. Accordingly, serious consideration must be given to creating a generally accepted code of conduct to minimize the risk of accidents caused by satellites carrying nuclear power sources.

On the subject of direct television broadcasting by satellite, at the meeting of the Legal Sub-Committee earlier this year considerable efforts were made to reach final agreement on the draft principles. Indeed, at one stage the agreement which has eluded us for so long seemed within our grasp. At this meeting of the main Committee, my delegation trusts that the efforts which were made in the Legal Sub-Committee will be renewed and that final agreement will at last be obtained. My delegation is particularly pleased that the Chairman of the Legal Sub-Committee, Mr. Wyzner, is among us. We know that his presence will greatly facilitate the achievement of that agreement for which we all hope. We also welcome the decision taken this morning to establish a Working Group on direct broadcasting by satellite under the chairmanship of Mr. Elaraby of Egypt. For its part, my delegation will, as always, play a full and, we hope, constructive part in trying to achieve consensus.

I should say from the outset, however, that we are not prepared to accept agreement at any price. Our view has always been that these principles are not essential. We consider that the matter is already adequately regulated within the framework of the International Telecommunication Union (ITU). Nevertheless, we recognize that other countries attach importance to these principles and for this reason the United Kingdom has co-operated to ensure that, as drafted, they should be as widely accepted as possible. There are two points to which my delegation attaches importance. We believe that a text which deals in effect with broadcasting must adequately reflect the right of everyone to freedom of expression, including the right of everyone to seek, receive and impart information and ideas regardless of frontiers.

(Mr. Chamberlain, United Kingdom)

Secondly, any principle of State responsibility should not purport to create new principles of international law concerning State responsibility where none exists at present.

As I said, we very much hope that final agreement can be reached on the principles of direct television broadcasting. Indeed, we would go so far as to say that the credibility of the Legal Sub-Committee as a forum for the drafting of legal texts is at stake. If agreement cannot be reached this time round, then it bodes ill for the future of the Legal Sub-Committee. At the same time, my delegation continues to believe firmly that the Committee and its two Sub-Committees should continue to work on the basis of consensus. If agreement eludes us this time, my delegation would, of course, sympathize with the general sense of frustration which would be felt by many representatives. But we would hope that this sense of frustration would not provoke delegations into seeking any departure from the consensus principle. What good would the text be if it were not accepted by all interested delegations - particularly by those delegations whose Governments are already planning to carry out direct television broadcasting? I suspect that such a resolution might well be simply ignored. Plans are already far advanced for the establishment of direct television broadcasting and, make no mistake, they will go ahead, whatever the United Nations does or does not do.

(Mr. Chamberlain, United Kingdom)

Finally, my delegation would like to address itself to the work programme of the Legal Sub-Committee. It has been the practice in the past for the Sub-Committee to hold one session a year lasting four weeks. If, as my delegation sincerely hopes, agreement is reached on the principles for direct television broadcasting by satellite and this item consequently no longer figures on the agenda of the Legal Sub-Committee, my delegation questions the need for the Legal Sub-Committee to meet for as long as four weeks. To be quite frank, we do not see much prospect of progress on two of the remaining three items - namely, remote sensing and definition/delimitation of outer space. My delegation would invite the Committee to reconsider the proposal that was made two years ago by the French delegation for closer co-ordination of the work of the Scientific and Technical Sub-Committee and that of the Legal Sub-Committee. We see merit in the suggestion that the meetings of the two Sub-Committees should be scheduled to overlap. The fact that the schedule of meetings next year has already been telescoped in order to prepare for the UNISPACE-82 Conference might provide the opportunity for this proposal to be adopted at least on an experimental basis for next year.

Mr. KRAUSE (Federal Republic of Germany): Mr. Chairman, I should like to express my delegation's pleasure at seeing this Committee working again under your able guidance. My delegation would like to welcome whole-heartedly the new member countries to this Committee. Their participation is an expression of the growing importance not only of the peaceful use of outer space for all nations, but also of this Committee. We look forward to working as closely with them as with the old members.

We congratulate Mr. Yash Pal on his nomination as Secretary-General of UNISPACE-82 and we are sure that under his wise and able guidance that important Conference will be successful. Nevertheless we hope that Mr. Yash Pal will soon be relieved of his heavy burden in preparing the Conference by the final appointment of the secretariat and the bureau.

(Mr. Krause, Federal Republic of Germany)

Let me also convey our thanks to the Chairmen of the two Sub-Committees, Mr. Wyzner and Mr. Carver, and to all the other members of the bureau for their efficient and dedicated work. We should also like to extend our gratitude to our Rapporteur, Mr. Bueno.

Furthermore, this delegation would like to add its voice to those who have praised the recent successful achievements in outer space by several nations, which for the sake of brevity I will not mention in detail again.

As far as our own activities are concerned, I want to mention some highlights of our recent programme, notwithstanding the fact that international co-operation within ESA has been mentioned by several other delegations that participate in it.

Most of last year's activities were carried out again in the area of international co-operation,multilaterally within this ESA work and on a bilateral basis, especially with the United States and France. The development of the manned space laboratory Spacelab has essentially been completed. The engineering model was delivered in November of last year, as scheduled.

Preparations for a complete German-materials Spacelab mission were further promoted. A memorandum of understanding between the Federal Republic of Germany and the United States of America concerning the furnishing of launching and associated services for German payloads was signed in April 1981.

Two successful launchings of sounding rockets carrying payloads for materials-processing under weightlessness were performed in April and May 1981. Smaller autonomous Spacelab payloads, currently being developed, will be operated on an experimental platform.

The third test flight of the European launcher Ariane has been a full success and is a striking example of European co-operation in space technology. With this third test flight, the European weather satellite METEOSAT-2 the Indian satellite APPLE were placed into orbit.

(Mr. Krause, Federal Republic of Germany)

In April 1980 a government agreement was signed between the Federal Republic of Germany and the Republic of France on technical and industrial co-operation in the field of direct broadcast satellites. Two almost identical satellites, one for each country, will be jointly developed by a Franco-German industrial consortium and launched by Ariane in order to allow technical and operational tests of this new technique.

Besides the Franco-GERMAN SYMPHONIE satellite and the orbital test satellite (OTS) programme, the Federal Republic of Germany actively participates in two ESA communication satellite programmes: the European Communication Satellite Programme (ECS), for which ESA is going to provide on a reimbursement basis five ECS satellites to be launched by Ariane and operated by the European Satellite Telecommunication Agency (EUTELSAT), representing the communication administrations of 17 European countries; and the MARECS programme, derived from ECS, intended to provide the international agency INMARSAT with at least two MARECS communication satellites for communication with ships equipped accordingly. As a supplement to this programme the Federal Republic of Germany sponsored the development and demonstration of appropriate ship terminals and on-board search and rescue equipment. It also participates in the ESA METEOSAT programme, where, as I have already mentioned, a second satellite was launched by the Ariane launcher last week.

In view of the world-wide importance of remote sensing of the earth the Federal Republic of Germany endorses the planning of a relevant ESA programme, to be co-ordinated with similar satellite projects pursued by other countries. We are therefore participating in a preparatory programme initiated by ESA. In our view, application orientation should be based on basic research where this is expedient in terms of measuring techniques. We participate in the evaluation of American satellite data via the ESA EARTHNET station network; we participate also in the ESA METEOSAT programme, where the launching of a second satellite is now being prepared.

(Mr. Krause, Federal Republic of Germany)

A supplementary major project concerns a metric camera and a twin-frequency scatterometer for use during the Microwave Remote Sensing Experiment (MRSE) on the first Spacelab flight. And, further, an image-producing microwave sensor - synthetic aperture radar (SAR) - for operation in climatic conditions prevailing in northern latitudes is currently being studied for a Spacelab flight.

One of the two United States-German HELIOS probes continued to supply interesting data during their sixth and fifth year of operation. Originally they had been scheduled to operate for 18 months only. It was thus possible to obtain data during a period extending from a solar minimum to the solar maximum which occurred in 1979/1980.

We are also glad to say that the six German experiments and the development of a propulsion unit for the United States-German GALILEO Jupiter probe are progressing according to schedule. Other projects under development are an infra-red telescope for astronomical and aeronomical tasks and telescopes in the gamma and EUV ranges for operation in Spacelab, in sounding rockets and in satellites. The development of ESA's X-ray satellite EXOSAT continues under the direction of a German firm for a launch in mid-1982.

(Mr. Krause, Federal Republic of Germany)

We have conducted successful research with high altitude sounding rockets. Our national programme now also includes an X-ray satellite for mission and feasibility studies. The preparation of the German-United States project AMPTE (Active Magnetospheric Particle Tracer Explorers) has proceeded successfully. The signing of a memorandum of understanding is planned for this year.

I should like to add that the European Space Agency (ESA) decided to embark on a major scientific mission called HIPPARCOS, which was mentioned before. A further mission is still pending. We are glad to say that German experimnt enters are heavily involved in the payload of the ESA Comet mission GIOTTO, which was approved in mid-1980 by the Scientific Programme Committee of ESA.

I should now like to add a few remarks on the items under discussion at this session of our Committee.

Technological developments in remote sensing during the past few years have opened up new and significant possibilities in the exploration of our planet which are of particular concern to the developing countries. The Government of the Federal Republic will continue to contribute its share to research and development in this new area within the scope of its own space research programme and also within the framework of ESA. The Federal Government hopes that the work in the Sub-Committee - until now a little slow - will be further intensified.

The Federal Republic of Germany had already advocated on earlier occasions that provisions concerning the use of nuclear power in outer space be incorporated into the current body of international law. The key objective of the work of this Committee is to ensure maximum protection of human beings and their environment, which includes both the earth and outer space, against the risks inherent in the use of nuclear power sources (NPS). Given the magnitude of these risks, the Federal Republic advocates information on the full extent of the possible risk inherent in the use of NPS for the world's population and its environment; the obligation of the launching nation to provide generic risk assessment of the NPS launched; adequate and timely information at launch and in the event of a space object's getting out of control, so as to make it possible to take effective precautionary action; and the maximum possible elimination of risks to the point where NPS are employed only if energy supply from other sources proves impossible.

(Mr. Krause, Federal Republic of Germany)

This spring the Legal Sub-Committee once again dealt intensively with the topic of direct broadcasting satellites. As we all know, the new technology of direct satellite broadcasting has opened up great possibilities for the improvement of the mutual exchange of information and for cultural exchange. Since it has been in existence, the United Nations has repeatedly emphasized the central significance of the free exchange of information, describing freedom of information as a fundamental human right and as the touchstone of all the freedoms to which the United Nations is consecrated. Freedom of information - that is, the right to transmit news anywhere and everywhere without fetters - was also rightly called by the United Nations General Assembly an essential factor in any serious effort to promote peace and progress in the world.

This essential factor for world-wide peace and progress should always be kept in mind when principles are discussed governing the role of States and the use of artificial earth satellites for international direct television broadcasting. The constitution of the United Nations Educational, Scientific and Cultural Organization (UNESCO) outlines the fact that ignorance of each other's ways and lives has been a common cause throughout the history of mankind of that suspicion and mistrust between the peoples of the world whereby their differences have all too often resulted in war.

Only recently the UNESCO General Conference reaffirmed that strengthening peace and international understanding, the promotion of human rights and the countering of racism, apartheid and incitement to war demand such a free flow of information.

My Government attaches great importance to the strengthening of international peace and security, as well as to the promotion of human rights and co-operation among States. We hope that all Member States will actively participate in efforts to reach these goals. We for our part shall therefore actively participate in the forthcoming deliberations on direct broadcasting satellites within the working group established this morning and chaired by Mr. Elaraby, whose experience and diplomatic skill we have known and esteemed for a long time.

(Mr. Krause, Federal Republic of Germany)

In order not to prolong my statement, I would refer to what was just said in the general remarks of the speaker preceding me, the representative of the United Kingdom. We also think that we can achieve progress and perhaps come to a compromise on the principles of direct broadcasting satellites and we also think that the credibility of our Committee would be in question if the consensus principle were left aside.

In conclusion, let me assure the Committee of my delegation's continued active co-operation in the search for constructive solutions of the problems before us.

Mr. AZAR GOMEZ (Uruguay) (interpretation from Spanish): Mr. President, first of all I should like to congratulate you and through you the other officers of the Committee. In view of your vast experience we are sure that you will direct our work to a successful outcome.

My delegation would like to thank most warmly and to greet those delegations which have welcomed our own to this Committee.

For years our country has followed with great attention the development of man's penetration into outer space and the legal regulation of that activity because we felt from the outset and now are convinced that space activity has opened up a most exciting area for research, but that not only does this bring men increasingly closer to the secrets of the universe but also it obliges them to unite on their own planet and to be reconciled to one another.

In this regard, Uruguay has internationally ratified the first four United Nations space treaties and recently signed the Treaty relating to the moon. Nationally, it has drawn up an aerospace policy, setting down specific norms and establishing a Centre for Space Research and Dissemination (CIDA) and has promoted the growing participation of other national bodies in the advances made in space technology and has also entered into co-operation and assistance agreements with international organizations and States.

Hence, during the 1970s Uruguay aspired to membership in this Committee, now finally achieved, as a way of expressing its commitment and of co-operating in an activity which was of benefit to it and which we felt should be of benefit to all mankind.

(Mr. Azar Gomez, Uruguay)

The space race presupposes revolutionary technology and legal principles and we feel that a realistic and honest stand should be taken on these.

We cannot transform space activity into a kind of cosmic chess game where the quick and clever try to checkmate their opponents, because there should not be any contenders but only a beneficiary: mankind.

Consequently it is our understanding that an honest and realistic vision of space activity means the harmonious blending of three essential ingredients: the interests of States which have clearly made progress in the space race, of those which have not done so, and of mankind, taken as a whole, in which the two former categories meet once again and merge.

Today we reaffirm our position that the free exploration and use of outer space, the moon and other celestial bodies must not in practice become free penetration into most States on earth and their exploitation from space by a few.

(Mr. Azar Gomez, Uruguay)

We feel that in order to avoid any unfortunate consequences on the relations of States on the earth, it is appropriate to warn that space acitivities and their legal regulation require fruitful concomitant development. It is well to remember today the myth of Icarus. In that case too, warnings were uttered: not to go too close to the sun so that its wings would not melt, and not to brush too close to the earth so that its wings would not be destroyed.

We also note the close link, in space activities, between the scientific and technological aspects, on the one hand, and the scientific and legal aspects, on the other. The latter serve as a stimulus to, and a guarantee of the scientific and technological aspects being channelled and framed within the purposes of this Committee, the Committee on the Peaceful Uses of Outer Space.

On the basis of those principles, and in order not to widen even further the gap between the developed and the developing countries, we must renew our efforts to ensure that results in the legal field - thus far rather restricted and for the most part purely theoretical - will be made specific and made to conform with the dynamic and tangible nature of technological development. Hence the challenge and the responsibility that we assume in actively joining in the work of this body.

(Mr. Azar Gomez, Uruguay)

Our delegation, following your suggestion, Mr. Chairman, that statements should not be too long, so that all the countries members of this Committee may have an opportunity briefly to express their views on the items under consideration, will not make a detailed analysis of each item now, reserving the possibility of doing that when the particular item is discussed.

Nevertheless, we feel it appropriate, in view of the importance of the question, to dwell for a moment on the geostationary orbit. Since there is no doubt about that orbit being located in outer space, it is subject to the rules governing outer space. But, given the possibility of the saturation of the geostationary orbit, and in the present state of technology and in order to ensure the orbit's equitable and appropriate use for all mankind and States in particular, Uruguay advocates, as it has done in the past, the urgent establishment of an international authority which, on the basis of the principles in force and specific regulations, would rationally administer the use of the geostationary orbit for mankind as a whole.

Finally, we wish to express our delegation's desire that the Second United Nations Conference on the Exploration and Peaceful Uses of Outer Space, in which the international community as a whole will participate, should not be a mere historic event but should also serve to reactivate what were regarded as promising targets at the time when we set them.

Whether or not the legitimate expectations of mankind in the space age will be frustrated will depend on the resolute and honest participation of us all. And let us not forget that this difficult task involves our commitment to future generations and to the very survival of man on earth.

Mr. HORNER (United States of America): I would begin this statement on a personal note. This is the first time that I myself have attended a session of this Committee, and I must say that for the initiate, the cogency and clarity with which you, Mr. Chairman, are conducting the business of the Committee are most valuable and welcome. In fact, I regard this as the best possible initiation to the work of the Committee, because it defines the standard for all of us involved in its work.

Since the Committee's last meeting, in 1980, the continued achievements of man in space have served once again to underscore the importance of this work. For the rapidity of scientific and technological advance challenges our ability to elaborate principles which can marry our deepest political values to our scientific ingenuity. The United States, involved in both aspects of this joint endeavour, continues to hope that we can succeed in our work here, not only in dealing with the issues of today, but in establishing a sound basis for coping with advances in technology that surely will come.

As the Committee knows, the people of the United States have taken pride in the successful flight of the Space Shuttle. We are grateful for the congratulatory messages we have received, from Governments and individual scientists and citizens alike. The enthusiastic international response to the Space Shuttle confirms the importance of the international character of the shuttle in the peaceful uses of outer space. Indeed, we have entered into agreements with several members of this Committee to develop and to use this new form of transportation. As with the landing on the moon in 1969, we hope that the shuttle too will mark a great leap not only for ourselves but for all mankind.

We are also delighted to congratulate our European friends on the successful launching of the Ariane this past Friday. This is a significant technical achievement and a milestone in international co-operation among the many States of the European Space Agency. For that and other reasons, my Government welcomes it.

(Mr. Horner, United States)

In the past year, the United States space applications programme has continued to focus on national and global problems having to do with the land, the atmosphere, the oceans, space remote sensing, satellite communications, and the like. In May of this year the seventh Geostationary Operational Environmental Satellite was launched. It will be of great help in weather forecasting.

In land remote sensing, LANDSAT-D, and its follow-on spacecraft known as LANDSAT-D[1], are expected to provide data through the mid-1980s. The institutional form of the operational system which will replace the experiemntal system is now under active consideration.

In the meantime, the experimental LANDSAT system continues. There are now ground stations in Argentina, Australia, Brazil, Canada, India, Italy, Japan, South Africa, Sweden, and of course the United States itself. Both the People's Republic of China and Thailand have signed agreements for direct access to LANDSAT data and are in the process of establishing ground stations.

Other satellites continued to probe the solar system. The remarkably successful VOYAGER-1 encounter with Saturn in November provided scientific data in such quantities that it will take years to analyze them. VOYAGER-2 will approach Saturn in August 1981; it will fly on to Uranus in 1986 and possibly even to Neptune in 1989. VOYAGER-1 has already made innumerable unexpected discoveries about Saturn, its moons and its rings.

The High Energy Astronomy Observatory 2 - or the Einstein Observatory, as it came to be called - recently ended a very successful mission. Launched in 1978, this satellite carried the world's largest focusing X-ray telescope and an array of other astronomical instruments. It studied thousands of X-ray-emitting stars, supernova remnants, galaxies and quasars, and has expanded our understanding of the universe itself.

(Mr. Horner, United States)

The development of the Galileo project also continues. This is a co-operative enterprise with the Federal Republic of Germany and will investigate the planet Jupiter and its environment. Work also continues on the Infrared Astronomical Satellite (IRAS) programme, a joint effort among our own National Aeronautics and Space Administration (NASA), the Netherlands and the United Kingdom planned for launch in 1982.

I should now like to comment briefly on the work of the Outer Space Committee and its Sub-Committees during 1980.

We wish to commend the Scientific and Technical and the Legal Sub-Committees and endorse their work as reflected in their respective reports. From what has already been said in this session of the full Committee, special attention will be given to some of the subjects they have considered. Therefore I do not intend to discuss here all of the issues covered in these reports, as our own views are recorded in the debates that led to their adoption. We should like, however, to make a few remarks in regard to some of the topics discussed.

(Mr. Horner, United States)

On the matter of the use of artificial earth satellites for direct television broadcasting, the Legal Sub-Committee continued its work and made important progress at least in its informal deliberations. But there are still important issues which remain unresolved. We are prepared to continue those efforts and we hope that agreement may yet be reached. The United States, for its part, will play an active part in these discussions. Our position is, of course, clear.

The United States is fully prepared to develop principles which respect the fundamental right of peoples to freedom of expression, principles which serve the essential need for a free flow of information and ideas. This freedom of information, as we speak of it, is not just one consideration among many equal and balancing considerations. It is, rather, as the General Assembly itself has declared,

> "... a fundamental human right and is the touchstone of all the freedoms to which the United Nations is dedicated."

As a constitutional democracy, the United States is dedicated to these freedoms. We are confident that this Committee and its Legal Sub-Committee can formulate a consensus document respecting these basic commitments and other relevant concerns.

My Government is impressed with the positive experiences with ongoing remote sensing programmes which have served to educate us to the potential and the possible modes of operation of remote sensing programmes. We now have several years of experience under our policy of non-discriminatory, open dissemination of LANDSAT-type data. Throughout this experience no State has pointed to a single instance of harm to its own national interests; and, indeed, all the results have been positive and beneficial. With this in mind, we look forward to continued discussions with the goal of elaborating principles which will further promote the benefits to all States which remote sensing can bring.

In this regard, as I am sure representatives are aware, the United States is in the process of examining and working out the possible transfer of responsibility for civil operational land remote-sensing satellites to the

(Mr. Horner, United States)

private sector. We believe that this would provide the best way to meet the needs of the users in both the United States and other countries, through timely and reliable delivery of data responsive to the requirements of users. To meet these goals over the long term and put the programme on a sound financial and equitable basis, the price of data from the operational system will need to reflect more of the actual costs incurred than has been the case with data sold as a result of a research and development programme. We anticipate that data will continue to be sold under a public non-discriminatory policy to ensure that the benefits will be available to all. In addition, the activities in this area, as well as other activities of United States non-governmental entities engaged in space operations, will continue to be supervised by and carried out under the authority of the United States Government.

With regard to the issue of arms control in space, my delegation must point out that this subject is inseparable from the complex question of security on earth and arms control in general. As Eugene Rastow, the Director-designate of the United States Arms Control and Disarmament Agency, stated as recently as this past Monday:

> "... fair, balanced and verifiable arms control agreements can play a significant role both in achieving and in maintaining peace."

However, I wish to emphasize again that these are not exclusively or even primarily space matters and are subjects which go well beyond the expertise and mandate of this Committee.

Finally, but by no means least, there is the subject of UNISPACE-82. The presentation that we heard yesterday by Mr. Yash Pal in its depth and scope reminds us of the potential significance and practical benefit of such a conference. In February of this year, the United States representative to the Scientific and Technical Sub-Committee stated:

> "My delegation has attempted to participate in planning for the 1982 UNISPACE Conference in a positive manner. We will continue to do so to the extent possible, but we are unwilling to accept what appears in our view to be an arbitrary distribution of secretariat positions which would result in the appointment of someone other than the Chief of the Outer Space Division as Executive Secretary of the Conference."

(Mr. Horner, United States)

Since that time, the United States Government has agreed to accept a proposal by the UNISPACE Secretary-General, Mr. Yash Pal, for a compromise candidate to serve as Executive Secretary of the Conference, provided that we are assured that the integrity of the United Nations personnel process as it relates to the Outer Space Division is preserved and we are able to retain confidence in mutual understandings reached within this Committee. To this day we have received no such assurance. This question has been left dangling, jeopardizing the entire integrity of the Conference, because its activities are being carried out without its principal staff elements being formally decided on. We believe the Secretary-General of the United Nations can act expeditiously to resolve this question and that a fair solution is available. It is our view that all countries, and particularly the developing countries, have a vital stake in resolving this issue so that the Conference can move ahead smoothly. Therefore, we urge all delegations to adopt a co-operative attitude so that the Secretary-General will be able to act on this. In the meantime, my Government must continue to question the utility of participating in a technical conference which instead seems to have become another political arena. We will, however, continue to contribute to the preparatory work of the Committee, in the expectation that the leadership issue will be properly resolved.

My delegation will comment on other issues before the Committee as they come up on the agenda later in this session.

Mr. HULINSKY (Czechoslovakia): May I, first of all, express my pleasure at the fact that you, Sir, are again with us in New York and my satisfaction at seeing you in the Chair of this important United Nations body.

The implementation of national and international programmes has opened up new possibilities both in the peaceful exploration and uses of outer space and in the development of practical co-operation among States for the benefit of all humanity. An example of such successful co-operation has been given in the INTERCOSMOS programme, within the scope of which Cuba, Mongolia, Viet Nam and Romania recently contributed to the further internationalization of outer space exploration.

(Mr. Hulinsky, Czechoslovakia)

For many years my country has been actively developing close co-operation with other socialist countries within their common programme of space exploration, INTERCOSMOS. From the whole set of experiments and projects I shall recall here only a few examples that might illustrate the nature and degree of our space endeavour.

For almost three years the first Czechoslovak satellite, MAGION, has been making simultaneous measurements with its parent satellite INTERCOSMOS-18 and applying a new method of studying the spatial structure of the lower magnetosphere and ionosphere.

(Mr. Hulinsky, Czechoslovakia)

In remote sensing, Czechoslovakia, as a party to the Convention on the Transfer and Use of Data of the Remote Sensing of the Earth concluded by the socialist countries, has been using large-scale Soviet space photographs, particularly multispectral air photographs of our territory. The main fields of application have been agriculture, forestry, hydrology, geology, environmental protection, surveying and mapping. Satellite data are currently used in the weather forecasting services of both the Czech and the Slovak Hydro-meteorological Institutes.

The results of the Czechoslovak participation in space communications experiments will be applied within the scope of activities of the INTERSPUTNIK organization and also for new services such as direct television broadcasting.

Czechoslovakia contributed to the establishment of the INTERCOSMOS international network of satellite laser tracking stations. The first generation network has 12 laser stations in 10 countries on four continents, all equipped with laser radar of Czechoslovak manufacture. A second generation radar was built by Czechoslovakia for the Helman Observatory in Egypt.

In space biology and medicine, Czechoslovak scientific institutions participated in several experiments performed on board the biosatellite KOSMOS-1129.

Let me now make some general comments in connexion with the reports of both our Sub-Committees.

We should like to express our satisfaction with the performance of the United Nations programme on space applications. However, while recognizing that the United Nations programme should be expanded both in scope and in content if it is better to accommodate the needs of the developing countries, we should like to stress the necessity of the best planning of and co-ordination between individual projects to be organized in the forthcoming period in order to use the means available in the most efficient way.

We subscribe to the general opinion recorded in the Scientific and Technical Sub-Committee's report that remote sensing of the earth from outer space should be carried out with the greatest possible international co-operation. In that connexion my delegation would like to reiterate its view that particular attention should be given to ensuring full respect for

(Mr. Hulinsky, Czechoslovakia)

the sovereign rights of all States and to solving of questions regarding the compatibility and complementarity of different remote sensing systems.

Concerning the question of space transportation systems and their implications for future activities in space, my delegation is satisfied with the decision of the Scientific and Technical Sub-Committee to continue its consideration of that item and to request the Secretariat to update its 1979 study on the international implications of such new systems.

The previous significant results in the progressive development of the law of outer space might - and should - be accompanied by another significant step if our Committee succeded in finalizing the draft principles governing the use by States of artificial earth satellites for direct television broadcasting. My delegation would welcome it if the Committee would, while considering this question at its present session, make a serious attempt at concluding this work by reaching a reasonable agreement on all remaining issues. We believe that the recent working paper sponsored by 12 countries (A/AC.105/C.2/L.131) offers a basis for final steps towards an over-all agreement.

We are firmly convinced of the necessity of taking new resolute steps to ensure that outer space is explored and used exclusively for peaceful purposes. The continuing danger emanating from the possibility of the introduction of certain types of weapons and weapons systems into outer space is rightfully a matter of concern for members of this Committee and the entire international community. That danger increased significantly after the United States unilaterally discontinued the Soviet-American talks on the prohibition of anti-satellite systems, just as, by the way, it has discontinued a number of other negotiations relating to questions of arms limitation and disarmament.

That is why we attach the utmost importance to the idea of working out legal norms prohibiting the deployment of any types of weapons in outer space as proposed by the delegation of the Soviet Union. We believe that talks to that end should be initiated as soon as possible, and we are ready to take a full part in them.

(Mr. Hulinsky, Czechoslovakia)

Having acquainted itself with the progress report of the Secretary-General of the Second United Nations Conference on the Exploration and Peaceful Uses of Outer Space on the present state of the preparations for that Conference, my delegation welcomes the fact that the complete set of background papers has already been issued and circulated to Member States. We consider it particularly significant that various international teams of experts organized by different international bodies assisted in the preparation of the background papers. International co-operation by hundreds of space scientists and engineers is clear evidence of the willingness of the international scientific community to assist the United Nations in fulfilling its difficult task.

We believe that that spirit of co-operation and mutual understanding should also prevail in the efforts of the Preparatory Committee to settle all remaining issues and thus remove the obstacles that still separate us from the final goal.

Mr. HUTCHENS (Australia): Mr. Chairman, may I begin by saying how pleased my delegation is to see you once again guiding the proceedings of this Committee. Judging from past experience, we may be sure of a constructive session under your experienced leadership.

May we also join you in welcoming the new members to the United Nations Committee on the Peaceful Uses of Outer Space. Their interest in joining this Committee can only be taken as a sign that the international community at large sees value in what is being done by it.

We listened with interest yesterday to the report of Mr. Wyzner, Chairman of the Legal Sub-Committee. We are fortunate to have him with us at this meeting, just as the Legal Sub-Committee is fortunate to have him as its Chairman. On behalf of Mr. Carver, Chairman of the Scientific and Technical Sub-Committee, may I thank those delegations that have been kind enough to express their confidence in his work.

We were sorry to note the departure of Mr. Padang from the position of United Nations Expert on Space Applications. We wish him well in his new endeavours within the United Nations Secretariat and thank him for the invaluable work he has done in his short time with the Outer Space Division.

(Mr. Hutchens, Australia)

We would also express the hope that his position will be filled quickly, as we regard the work that he was undertaking as being of particular importance especially for developing countries.

In view of the length of the speakers' list and the Chairman's entreaty for brevity, I do not intend to take up much of the Committee's time. As members of the Committee will be aware, Australia, like a number of other delegations, does not make a practice of outlining recent events in its space programme during the meetings of the two Sub-Committees. We consider those contributions are best limited to the meeting of this parent Committee.

Before outlining Australia's recent activities in this field I should like to congratulate the United States on its impressive achievement in the successful first test launch and landing of the Columbia Space Shuttle. Australia takes some pride in the fact that space-tracking facilities within our borders were used by the Shuttle and in their own small way helped to contribute to the success of the mission. Indeed the commander and co-pilot of Columbia are now in Australia to express their thanks for the co-operation received. We should also like to congratulate the European Space Agency on its successful launch last week and also the Soviet Union and its partners in the INTERCOSMOS programme on the continuing successes they have achieved in the past year.

(Mr. Hutchens, Australia)

I turn now to Australia's activities in the past year. The Australian LANDSAT station became operative in November 1980 and is receiving, recording and processing data from this series NASA satellites. The area to be covered by the Australian LANDSAT station takes in a portion of the territories of some of Australia's near northern neighbours and we are hopeful that we will soon be in a position to answer requests from these countries for coverage and imagery. Demand for LANDSAT products within Australia has been high, with the strongest demand coming from the mineral exploration industry.

The Australian Bureau of Meteorologyhas continued to make use of meteorological satellites in the applications to which we referred in last year's annual report to the Committee.

The Australian Government gave the Overseas Telecommunications Commission of Australia ownership and management of Australia's national communications system planned to be in operation by 1985. Pending the availability of a national satellite, the Commission is leasing INTELSAT space segment capacity for domestic telecommunications services. A short-term lease of half a global beam transponder commenced in November 1980. Also during 1980, a remote area television service commenced operating under a five-year agreement whereby the Commission leases a sole beam transponder from INTELSAT which provides two television channels to four states and one territory in Australia for re-broadcast.

Australia's use of INTELSAT continued to grow during 1980. A total of 1,145 satellite circuits were provided through Australian earth stations to 48 countries. International television programmes are carried to and from Australia exclusively by INTELSAT. Services to the South Pacific were carried on single-channel-per-carrier equipment via the Overseas Telecommunications Commission, with an increase in 1980 of from 26 to 34 circuits.

(Mr. Hutchens, Australia)

Five standard earth stations are now in use in Australia in the INTELSAT system.

The NAVSAT satellite system was used by the Queensland State Government for position-fixing and mapping, and the Division of National Mapping used the same satellite system to provide position-fixing on the Australian mainland, on the Australian offshore and on Heard and McDonald Islands, as well as in the Antarctic Territories. In addition to the NASA space tracking stations mentioned before, the Australian Department of Science and Technology has sited a mobile laser tracking station in Western Australia as part of a joint NASA/Australian crustal dynamics programme. This station also has a role in providing communications with the United States Space Shuttle programme.

Before addressing myself to some of the particular agenda items we have before us, I should like to make a few brief comments about UNISPACE-82. We are indebted to Mr. Yash Pal for the detailed outline he gave us yesterday on the progress achieved to date in the preparations for UNISPACE-82. My delegation is convinced that with proper planning next year's Conference in Vienna can mark a genuine upsurge in international interest in space activities, particularly as they relate to the potential they offer for aiding the development process. The work done so far by Mr. Yash Pal and his associates and, indeed, by all other members of the Outer Space Division of the Secretariat, is to be commended. As has been mentioned by a number of other speakers, my delegation is very disappointed that the full Secretariat for UNISPACE-82 has still not been appointed. We believe that the United Nations Secretary-General has a clear responsibility to make the necessary appointments and we would urge him to make them as expeditiously as possible. It would be a matter of concern to my delegation if the preparatory work for the Conference were further hindered by delays on staffing issues which do not properly belong in this Committee, but which rest squarely with the Secretary-General. In this regard we have noted the compromise proposal suggested by Mr. Yash Pal and we commend it to the Secretary-General as an equitable and fair way out of the present impasse.

(Mr. Hutchens, Australia)

I turn now to the agenda items before us. On remote sensing, my delegation considers that the debate in both Sub-Committees in the past year has been useful, though the progress achieved was, perhaps, a little disappointing. This item has been on our agenda for some time now and perhaps it would be useful, if we are genuinely seeking progress, to concentrate on those issues where agreement would appear to be more readily attainable. My delegation believes that, given a spirit of compromise, it should be possible eventually to produce agreed principles. The longer the item remains on our agenda, with little or no progress being made, the greater is the risk that all delegations will become so set in their positions that compromise becomes more difficult. My delegation is fully prepared to co-operate in any new proposals which may help us to move forward on this important issue.

My delegation shares the view expressed by other delegations during this debate that it should be possible during this meeting to come close to finalizing the various draft principles on direct broadcasting by satellite. We are glad that the consultations carried out by Mr. Wyzner reflected this fact and we look forward to progress being made in the Working Group to be chaired by Mr. Elaraby. The Australian delegation attaches the utmost importance to some of the questions involved in this issue and looks forward to co-operating constructively with other delegations which also seek to move forward. The draft negotiating text which came out of the last meeting of the Legal Sub-Committee does, in our view, offer some scope for progress, though there are still a number of serious deficiencies in it. If those deficiencies were not removed, my delegation would have serious problems with it. The Australian delegation was pleased to note the progress made in the past year on the question of the establishment of guidelines on minimum standards for the safe use of nuclear power sources in outer space. We agree with the manner in which principal carriage of this matter has now passed from the Scientific and Technical Sub-Committee to the Legal Sub-Committee.

(Mr. Hutchens, Australia)

In the past, a number of delegations and, today, that of the United Kingdom, have suggested that consideration should be given to streamlining the work of the two Sub-Committees of this Committee, which would include shortening their duration and having at least some of their sessions overlap. My delegation sees considerable merit in this suggestion, as we have stated in the past.

In conclusion, Mr. Chairman, may I echo the optimism you expressed in your opening statement, and also that expressed by Mr. Yash Pal in yesterday's meeting of the Preparatory Committee. May I assure you, Sir, and other members of the Committee, that Australia shares that optimism and looks forward to working with this Committee and to seeing substantial progress achieved.

Mr. BELTRAMINO (Argentina) (interpretation from Spanish): The Argentine delegation wishes first of all to congratulate you, Mr. Chairman, for the clear, useful and full statement you made at the beginning of the session, and we wish to express our appreciation for the dedicated and talented way in which you conduct the business of the Committee.

We also wish to express our gratitude to Mr. Carver of Australia and Mr. Wyzner of Poland for their concern and diligence in leading the debates in both Sub-Committees and for the quality of the reports submitted.

We can be rightfully proud of the progress and advances made in recent years in space activities, but we must not forget the responsibilities we have now or the need for broad international co-operation in order to carry on.

(Mr. Beltramino, Argentina)

The Republic of Argentina has been taking an active part in the Committee since it was set up in 1957 and, as a founding member, is very pleased to see the growing interest its items draw. One consequence of this is the recent increase in membership of the Committee. We wish to welcome China, Spain, Greece, the Syrian Arab Republic, Upper Volta, Uruguay and Viet Nam, since we are sure that those countries will redouble their efforts to see that science and technology will be an efficient way of improving inter-State relations and of speeding up progress for the developing countries.

I shall now touch on the space activities in my country since the last session of the Committee.

The remote sensing centre of the National Space Research Commission (CNIE) covers two important areas: the area of acquisition, processing and distribution of LANDSAT satellite data and the area of research and applications.

We have a satellite transmission - receiving station near Mar Chiquita, about 400 kilometres from Buenos Aires, and a processing and dissemination centre in the federal capital. The centre for research and applications, in the city of Vicente Lopez, deals with the development of programmes and with methods of applying remote sensing to the charting of natural resources. At that centre the human resources training programme is continuing briskly: between 1980 and 1981 there were eight intensive remote sensing courses, both national and international, the national courses organized by the National Space Research Commission of Argentina, and the international courses sponsored by the Organization of American States (OAS) and the United Nations.

The need for capability in this area is to be found at every level; hence our country decided that it should have a post-graduate course in remote sensing - at the master's level, to be precise. Together with the Research Commission of the Province of Buenos Aires and the two universities in the area, a reference course was started at the San Miguel Space Centre in April 1981.

Similarly, the Organization of American States (OAS) has scheduled for next October a regional course on the evaluation of water resources by remote sensing.

(Mr. Beltramino, Argentina)

In addition to this international activity, from 2 to 9 June 1982, again in Buenos Aires, the Sixteenth International Symposium on Environmental Remote Sensing will be held under the auspices of the Environmental Research Institute of Michigan and the National Space Research Commission of Argentina. We have invited all interested countries and organizations to take part in that event, which we expect to be attended by more than a thousand people.

Since November 1980 we have had a launching complex at the Vice-Commodore Marambio Antarctic Base, situated at 64° 14' south and 56° 33' west. Its infrastructure allows for the launching of sounding rockets and other larger rockets, and is also equipped to send up balloons to study the ionosphere.

There is a new satellite transmission-receiving station in the western part of the country which is designed to use GEOS satellites. At the national level a project has been initiated for a large increase in the number of automatic information-gathering stations (DCP) to be set up in remote areas of the country.

There is a programme under way to increase to 30 stations the land communications segment, using the transponder capacity of INTELSAT.

In March of this year, in Buenos Aires, the Committee for Space Research (COSPAR) organized a working meeting on the need for launching-bases in the southern hemisphere. Participants had the opportunity of visiting our country's facilities at the Regional Centre of the National Space Research Commission, in the Western part of the country.

Finally,we are pleased to inform you that phase "A" of the study on Argentina's domestic satellite - in other words, the study of the architecture of the system - has been completed. In support of the related activites, in 1980 a post-graduate course in space technology was started up at the San Miguel Space Centre. Specialists will thus become available to work in such areas. Lecturers in the aforementioned course include eminent internationally renowned scientists.

(Mr. Beltramino, Argentina)

I should now like to mention a few basic positions of our country on some agenda items.

My Government considers that remote sensing is too important to progress for us to run the risk of impeding or holding up its advance by putting obstacles in its way. The legal principles which were once envisaged have already been overtaken by technology. What is most important on this point is to attain a freer flow of information so as to achieve proper "transparency" of the market, whereby every State would feel obliged to transmit to third parties all information obtained, whether it has been analysed or not. Access to information cannot be discriminatory, which implies the need to modify some of the principles in the working paper which appears in annex I to document A/AC.105/288. Sensed States must have proper access to the primary data obtained through the remote sensing of their territories, without prejudice to any preferential régime concerning the processed information.

With reference to the geostationary orbit, it is our view that the item calls for an agreement which allow the reservation of segments of orbits and frequencies so that the developing countries may have access to this natural resource, which we consider should be regarded as the common heritage of mankind.

Argentina considers that States working with nuclear power sources in space must assume full responsibility in any emergency or in accidents caused by the re-entry of space vehicles equipped with or transporting such energy sources. We maintain the need to regulate the use of this kind of power source and to establish a model for notification to be given so that the operating countries will keep the international community up to date.

One item of concern to us is direct television broadcasting by satellite. Although this technique can be highly useful for communications, the danger posed by the distortion of peoples' cultural heritage makes it essential for an agreement to be reached. It must be based on the right and duty of consultation among States and on the need for them to arrive at agreement beforehand, so that direct television broadcasting by satellite can then take place. We therefore reaffirm our conviction that the document we submitted, together with Brazil, Canada, Colombia, Chile, India, Indonesia, Iraq, Kenya, Niger and Venezuela at the twentieth meeting of the Legal Sub-Committee, and which appears as annex IV to its report, can offer a good compromise text and a point of departure for constructive negotiation.

(Mr. Beltramino, Argentina)

This document puts the principles of freedom of information and respect for the sovereign rights of States on an equal footing.

We also view with concern the fact that the natural resources satellite systems of the LANDSAT type may be used increasingly for commercial purposes and not for promotional purposes as are the meteorological satellites. We recognize the high cost of manufacturing such satellites and launching them, indeed of operating them, but it cannot be thought that all investment in space can be underwritten by the users. The developing countries, which are the biggest users of this technology, are not in a position to meet the cost of obtaining information if this system were to be made completely commercial. At the same time, it would undermine the objective with which the system was brought into being, namely, to offer information to the entire community using as a basis machinery for international technical co-operation.

As for the second space Conference to be held in Vienna in 1982, Argentina has supported it and continues to do so. In May in Buenos Aires, there was a preparatory seminar for the Conference and we greatly appreciate all the co-operation we received from the United Nations Outer Space Affairs Division concerning the organization of that seminar. At that time we were honoured to receive a visit from Mr. Yash Pal, Mr. Padang and other specialists from the United Nations to all of whom we wish publicly to express our gratitude.

Our country has the appropriate technical structure to become a regional centre for research and training in remote sensing. We therefore repeat the offer made in 1979 and noted with appreciation by the Committee at its twenty-second session, as may be seen from paragraph 29 of the report (A/34/20). At the moment we have the support of several countries in the region and we would be pleased to see the Committee formally receive our offer so that the proper consultations could begin.

Before closing, I should like to express our concern, which is doubtless shared by the great majority of delegations, over the fact that no solution has as yet been found to the problem preventing the essential appointment of members of the secretariat. At the same time, we wish to express our interest in seeing the respective appointments made as soon as possible so that proper preparations for the Conference, which interests and concerns us all, should not be affected.

We of course reserve the right to speak on specific technical agenda items and to inform the Committee of any progress made.

Mr. AUSSEIL (France) (interpretation from French): Mr. Chairman, it is an honour for me to be speaking here for the first time in the Committee on the Peaceful Uses of Outer Space and I should first of all like to say how pleased my delegation is at seeing you presiding over our work once again. Despite the little time that I have spent in this Committee I have been able to appreciate your great ability and determination and I have no doubt that your work will, as in the past, help us to discharge the mandate confered on us by the General Assembly.

I should also like to thank the Chairmen of the two Sub-Committees for the tireless efforts they exerted to have us move ahead in this area by consensus. The presence of Mr. Wyzner is certainly helpful to us.

I should also like to commend the Secretariat officials who diligently execute the tasks incumbent on them, tasks which have increased because of preparations for the Second United Nations Conference on space.

Lastly, I should like to welcome the new members which joined us earlier this year. Our two Sub-Committees have already been able to appreciate their contribution to our debate and I am sure their participation will enable us to go into some of the matters before us in greater depth at a time when the peaceful exploration of space is developing at an astonishing rate.

There can be no peace without international co-operation and there can be no development of space activities without international co-operation. My country had long ago made that a rule of conduct in its work, and I believe that the growth of France's space activities illustrates very concretely the confidence that our country has in in-depth international co-operation. This applies to two basic and quite different phases of the life of a space system: on the one hand, design and development and, on the other hand, the construction and operation of the system.

I have chosen to give a few examples from the period of time that has elapsed since our last session and which deal with the three principal sectors: remote sensing, telecommunications and space transport.

I wish to refer to the recent achievement of the Ariane launcher simply to emphasize our belief that co-operation with our European partners is now on a firm and solid basis and that it is now proved that the space industries of the various countries of Europe can work together. The success

(Mr. Ausseil, France)

of the enterprise was due to the discipline with which the 11 States members of the European Space Agency worked hard, during the seven years it took to develop the launcher, to attain a clearly defined objective, namely, to establish a launching system specifically designed for geostationary missions involving a deliberately reduced degree of technological innovation coupled with increased reliability. It is also important to note the European partners' agreement on the form to be given to Arianespace, the company which is responsible for manufacturing the European launcher beginning in 1983 and also with responding to the needs of the world community in the best possible conditions. With a view to proposing a substantial and progressive lowering of the costs involved in launching, the missions of the current launcher will be carried to the logical limit of its gorwth capacity.

As for direct television broadcasting by satellite, France has chosen to place its activities within the framework of bilateral co-operation with the Federal Republic of Germany, thus using in-depth experience acquired during the joint development of the SYMPHONIE telecommunications geostationary satellites.

(Mr. Ausseil, France)

Thus, 1981 is the year of the first major industrial contracts for the development of French and German pre-operational direct television broadcasting satellites, called respectively TDF-1 and TV SAT. The designing and development of these satellites are being carried out within the framework of an industrial organization which is perfectly symmetrical and in which France and the Federal Republic of Germany are equally responsible for the payloads and the platforms. The positioning of the two satellites will take place in 1984, the second a few months after the first. The management of each of the programmes will naturally be provided separately by each of the two countries, while the space segments themselves will be more or less the twin products of a single undertaking.

The French contribution to data collection and to localization by satellite is the ARGOS system, placed on board the meteorological satellites regularly launched by the United States. Within the context of that co-operation, France, from the Space Centre in Toulouse, furnishes the world-wide operational service of data-collecting and localization of platforms. Continuity is ensured by the operational nature of the United States meteorological missions, to which the French system is linked.

My last example is the work done by our country in the area of earth-sensing, work which has led us to engage in deep reflection on the best way to organize the world-wide distribution of remote sensing

In co-operation with Sweden and Belgium, France is developing the SPOT system, which, particularly because of the technology of its sensors, belongs to a new generation of satellites used for peaceful applications such as geological and mining prospecting, human and physical geography, thematic mapping and the assessment of natural resources. By its high spatial resolution and its oblique vision, SPOT offers new fields of application to the world community of users. These users can, as they prefer, either use one of the stations that can receive directly, file and distribute images in their zone of vision or use a specialized unit, SPOT IMAGE, set up with a view to the continuous operation of the system for 10 years. In the latter case, the request is analysed and met by means of existing files or through special programming of the satellite, backed up by the required processing

(Mr. Ausseil, France)

operations as a whole, through an organization that allows for the optimum use of the entire system and encourages swift distribution of the images to the users.

France and the United States have taken the necessary measures to ensure compatability of the LANDSAT-D and SPOT systems, so that users can receive and interpret the data transmitted by the two satellites with as much common equipment as is possible.

In order to provide users with the most up-to-date information on the systems, enabling them to compare their experience with that of others and to study in greater depth the possibilities open to them over the medium term, regional seminars providing technical information have been held at Bamako and Bangkok; there has been active European participation in those seminars. Similar seminars will be held, for example in connexion with simulations of SPOT data to enable potential users to benefit as much as possible from the system once it starts operating.

It is France's view that any system for the dissemination of information obtained by remote sensing must meet three requirements. First, it must be based on technical facts that are realities now or will soon be. Secondly, there should be very broad dissemination of remote sensing data, because it is only in that way that this new technology can be used to satisfy the legitimate aspirations of the developing countries. In that connexion, it is for my country a given that the sensed States must have access, in reasonable conditions, to all data concerning its territory. It is also quite clear that, on the other hand, access to all the data cannot be granted to any third party, because uncontrolled dissemination of certain data could, in that context, be detrimental to the interests of the sensed States. Lastly, prior consent by the sensed State must be required for the communication of certain data which we would describe, in a general way, as "sensitive".

That approach - a realistic approach - is the only one which I feel can serve the development of the international community and take account of the concerns that have been very forcefully and relevantly expressed ever since our Committee began studying the legal consequences of remote sensing from space.

(Mr. Ausseil, France)

Our Committee must take such a realistic approach when it begins drafting rules to govern the use of direct television broadcasting satellites and rules to govern the use of nuclear power sources in space.

I am sure that this spirit of realism will prevail in the discussions this year that should conclude our work on the drafting of principles applicable to direct international television broadcasting from satellites. I trust that this spirit will continue to guide us next year when we start our consideration of the use of nuclear power sources in space.

I shall say no more on this subject at this stage Mr. Chairman, because I wish to heed the appeal you made to us yesterday to be brief.

With regard to the Second United Nations Conference on outer space, I would recall that the countries members of the European Space Agency have agreed on the candidacy of Mr. Bortzmeyer for the post of Deputy-Secretary-General of the Conference. I trust that the remaining obstacles to what is already very broad agreement will soon be overcome and that the important work awaiting us can be undertaken in the necessary climate of tranquility.

I wish to say just one last word. For my country, as for the international community as a whole, space is an area of freedom - freedom shared by everyone. This freedom must serve the fundamental purpose of the United Nations as set forth in its Charter: the strengthening of international peace and security. Therefore, outer space cannot be appropriated by any nation. It must be and must remain an area where the co-operation of our Governments becomes ever stronger in order to promote peace, security and development. It was in that spirit that France proposed in 1978 the establishment of an international satellite monitoring agency. It is for that reason that my country has always opposed allowing outer space to become an area for aggressive, non-peaceful confrontation.

Mr. LASODE (Nigeria): Before making my delegation's statement of general views, I should like to extend to Ambassador Jankowitsch my delegation's warmest congratulations at seeing him presiding once again over the deliberations of the United Nations Committee on the Peaceful Uses of Outer Space. We are certain that he will bring the wealth of his experience to bear on the Committee's work during its current session.

I avail myself also of the opportunity to convey to the other officers of the Committee our congratulations and best wishes.

We welcome into the Committee the delegations of China, Greece, Spain, the Syrian Arab Republic, Upper Volta, Uruguay and Viet Nam.

The Committee's current session is taking place at a time when a number of developments on the international scene bear specific relevance to the urgent necessity of concluding the guiding principles that should regulate the conduct of States in the exploration and exploitation of outer space for peaceful purposes. Happily, some of those developments portend a desirable "state of play" from which humanity can look forward with optimism to a future of hopeful expectations. Unfortunately, some others which have a military import do not augur so well for our common endeavours. In my delegation's view, it will be the purpose of the Committee during its current session to strive to resolve some of the problems which have been identified by either the Legal Sub-Committee or the Scientific and Technical Sub-Committee, in their reports in documents A/AC.105/287 and Corr.1 and A/AC.105/288.

Some of the problems relate to the definition and/or delimitation of outer space, the management of the geostationary orbit, remote sensing with its implications for sovereign rights, and the use of nuclear-power sources in space and its safety hazards. We acknowledge in this connexion the useful contributions which have been made by the two Sub-Committees under the impressive direction of both Mr. Carver of Australia and Mr. Wyzner of Poland in seeking solutions to the problems identified.

(Mr. Lasode, Nigeria)

The human adventure into outer space has evolved over the years and has opened up a new vista of possibilities, both in terms of concept and the application of the related technology. In this connexion, we refer to the successful launch into space by the United States of its Space Shuttle Columbia in April 1981 on an experimental run. This record of achievement represents a significant step in a reusable space transportation system. But we must express our grave concern at the indication that Columbia could well have military implications.

We congratulate those other countries which have, either jointly or severally, carried out space programmes in the form of satellite launchings, for research purposes, remote sensing, communications and meteorology or of a specific peaceful reconnaissance mission into outer space. The achievements of SALYUT-6, INTERCOSMOS and the European Space Agency's Ariane are indicative of the possibilities of international co-operation in the field.

Nigeria believes that space science and its related technology will retain validity and appeal only if the major preoccupations and purposes are directed towards the goals of development, both social and economic, with the attendant benefits accruing not only to those countries which at present have the economic strength and structures to sustain a viable outer space programme but also to developing countries which expect to apply the resulting technology to solving some of their immediate development problems.

My delegation would, however, like to reiterate the position that it has consistently maintained: that the continuing militarization of outer space through the use of "hunter" satellites is unacceptable. It has done so in full cognizance of the current state of relations among the space Powers which are a matter of concern for the interests of international peace security. The development and deployment of anti-satellite weapons, in our view, violate the spirit of the 1963 partial test-ban Treaty and the provisions of the 1967 Outer Space Treaty. We acknowledge the merit of competition as a healthy human trait, but we cannot accept

(Mr. Lasode, Nigeria)

outer space as a battlefield of the future. In the circumstances, it is our expectation that the space Powers in particular will assume their full moral responsibility to prevent a possible future war in outer space that would have deleterious consequences both for humans and the environment.

Nigeria's experience in outer space has been concerned with the application of technology for purposes of development. It has applied that technology in the fields of agriculture, mining, forestry, fisheries, communications and meteorology; but it believes that it should not be a mere consumer of this imported technology. Rather, it would be consistent with our objectives that our human potential should provide an input into the development of the technology. That is why Nigeria places a premium on the training of manpower and the provision of infrastructure to provide a viable basis for a future take-off in the field.

In furtherance of our interests, my Government has established a national committee charged with the responsibility of dealing with all matters relating to the exploitation of space technology for peaceful purposes.

Remote sensing continues to be of special interest to Nigeria. Within the framework of the African remote sensing programme conceived by the Economic Commission for Africa, Nigeria has established at Ile-Ife a trainer and user assistance centre and is currently expanding its facilities to include training courses in satellite remote sensing, in addition to its present courses in cartography and photogrammetry. To complement this, Nigeria plans to build a remote sensing satellite ground receiving station with data processing facilities.

My delegation accepts as a basic premise that considerations relating to the peaceful uses of outer space should be based on the need for effective safeguards that would ensure full respect for the sovereignty of Member States, the principles of international law and the relevant provisions of the United Nations Charter. Account should also be taken of the principles that should govern the activities of States in the exploration and use of outer space, including the moon and other celestial bodies, as well as the instruments adopted by the International Telecommunication Union and other specialized bodies.

(Mr. Lasode, Nigeria)

On remote sensing, my delegation feels, inter alia, that there should be a well-defined co-ordination role assigned to a separate body within the United Nations system vested with appropriate authority to discharge the task effectively.

On direct broadcasting by satellites, my delegation notes with satisfaction the substantial efforts made by the Legal Sub-Committee at its twentieth session. In this regard, it believes that a basis could be found at the current session of this Committee for concluding the drafting of the principles. In this connexion, my delegation will have no difficulty in supporting the views of delegations which have subscribed to the proposals in working paper A/AC.105/C.2/L.131, which appears as annex IV in the report of the Legal Sub-Committee on the work of its twentieth session.

On the question of the use of nuclear power sources in outer space, my delegation reiterates its position that full account should be taken of the following essential points, namely, information concerning the use of nuclear power sources, notification prior to re-entry, assistance to States affected, and radiation exposure levels. We believe, in fact, that the launching State should take responsibility for making good any damage resulting from the disintegration of its launched object for the State affected, and that such responsibility should be mandatory.

(Mr. Lasode, Nigeria)

Concerning the management of the geostationary orbit, my delegation is aware that present-day radio technology dictates that communications satellites operating at the most frequently used frequencies should be spaced out about 7 degrees of arc apart in order to avoid mutual interference. This means that for the African land mass spanning the area from longitude 342°E in Senegal to longitude 52°E at the Horn of Africa there are just 10 satellite positions in the geostationary orbit. Some of those positions have already been taken up by non-African satellites. It is on that basis that my delegation proposes the assignment of the responsibility of managing the geostationary orbit to a specialized body of the United Nations system in order to ensure an equitable allocation to the States of that region of the very limited orbital slots in the geostationary orbit.

My delegation notes that the Committee on the Peaceful Uses of Outer Space is continuing its consideration of questions relating to the preparations for UNISPACE-82. In this connexion we should like to emphasize that, as we understand it, the basic purpose of the Conference is to enable the developing countries to be fully acquainted with the state of the art of outer space, the related technology and the benefits derivable therefrom. Therefore it is important that when the Conference is planned and prepared, the developing countries for which the Conference has been designed must be made to feel part of the decision-making process. In other words the composition of the bureau should be large enough to reflect an equitable geographical distribution of seats. We expect that problem to be resolved now so that the bureau can start its work effectively in due course.

Secondly, my country looks forward to UNISPACE-82 as providing a useful forum for the promotion of international co-operation in the peaceful application of outer space technology.

Some of the basic issues that will confront UNISPACE-82 have been addressed in my country's national paper to the Conference. Essentially we have touched upon three issues - namely, efficient use of the geostationary orbit; the training and education of users of space technology; and multilateral intergovernmental co-operation in space activities. These will be expatiated upon at the appropriate time.

(Mr. Lasode, Nigeria)

Finally, my delegation appreciates the amount of work that has already been done by Mr. Yash Pal in his capacity as Secretary-General of UNISPACE-82. It would be in line with his responsibilities if the pre-Conference publicity being arranged were to enable the Secretary-General to reach a wider audience particularly in the developing countries. I should also add that my delegation will endeavour to make its own contributions to resolving any of the outstanding issues facing the Committee so that the work of our current session can come to a satisfactory conclusion.

Mr. RODRIGUEZ MEDINA (Colombia) (interpretation from Spanish): Mr. Chairman, the Colombian delegation would like to congratulate Ambassador Jankowitsch on the wise manner in which he is presiding over this session of the Committee on the Peaceful Uses of Outer Space. We wish also to congratulate the other members of the Bureau. As Latin Americans we welcome the successful way in which the Rapporteur, Mr. Carlos Bueno of Brazil has been working. We also welcome the seven new members of the Committee. We are sure that they will make valuable contributions to our work.

Our country indeed looks forward to the forthcoming Vienna Conference. We are now completing our preparations, but we cannot conceal our concern regarding the real benefits that the international community will derive from this contact with space.

We are now on the threshold of infinity, so to speak, because of space technology, and yet already we can see a few disturbing signs. We can see how the world is once again being split up, how before our very eyes a new gap is opening up, and this time it is one of astronomical proportions.. It is the gap between the launching States and the non-launching States.

As a result of this spectacular process the scientific and technological distance between nations has dramatically widened. Today the United States, the Soviet Union, Europe and the rest of the world - more than 130 countries - has each a quarter of the world's supply of scientists and technicians.

At no stage in the history of human thought or activity have we seen so clearly and dramatically expressed the link between technology and power. And never before have we seen so clearly the powerlessness of the developing countries as they are left on the periphery. Never has a conquest brought us so much enlightenment; but it also could be a most devastating and selfish conquest.

(Mr. Rodriguez Medina, Colombia)

It is good that Vienna should give us pause, an opportunity to meet again. If we do not take the opportunity to work together, if we do not establish effective, disinterested and sincere international co-operation in which the parsimonious transfer of technology is replaced by a generous flow for the benefit of the rest of mankind, then our Organization could be faced with the collapse of the ideal of a rational society that would understand and control not only the natural environment but also the cultural, political and social environment of contemporary man.

Vienna will offer an opportunity to prove that the conquest of space has been achieved in the name of all mankind and not for other much less altruistic reasons.

For in recent days in this very room we have been hearing voices quite justifiably raised in alarm because of the growing arms race that has begun in space. Colombia joins in that chorus and states that, although the danger is constantly increasing, equally serious is the possibility that space could be turned into a big market for economic interests. Turning space into a military base would be an attack on the world; but even using it for business or as a mere instrument of propaganda would be an affront.

That is the spirit in which we shall approach Vienna. Our meeting there can consolidate and ensure the final take-off of fruitful international co-operation for the benefit of all, or it can go down in history as simply a shop window for a few, a stand for promoters of unattainable goals that will simply make the weak feel even more frustrated in their powerlessness.

What is to come out of Vienna depends upon us. Our delegation feels that Vienna should therefore not confine itself to examining the technical and scientific aspects of advances in the use of space but should also deal with the most urgent legal issues. The Conference would thus become a welcome opportunity to fill the gaps that were undoubtedly left by the 1967 Space Treaty. Vienna can and must be the best place to define and delimit outer space, taking into account the phenomenon of the geostationary orbit. We could thus finally move towards a space law that will be consistent, systematic and harmonious.

(Mr. Rodriguez Medina, Colombia)

For years, Colombia and the equatorial countries have been struggling to establish an international legal order that would take account of the legitimate interests of the equatorial countries in respect of the synchronous geostationary orbit and that would provide adequate regulations for the rational use of that orbit. And we believe that there should be a special law for this, so that the benefits can be shared equitably.

Today, as in the past, Colombia, a country on the equator, a developing country, will stand by the peoples owners of this incalculable possession, this limited natural resource, namely, the synchronous geostationary orbit. We are convinced that it must be used for the benefit of all mankind and, in particular, to meet the needs of the least developed countries. It must never be used for monopolies set up by the developed countries as a result of the unequal development of technology in the world.

In accordance with this position, our delegation reaffirms its belief that a working group should be established to deal with questions relating to the "definition and/or delimitation of outer space and outer space activities, bearing in mind, inter alia, questions relating to the geostationary orbit", following an express recommendation of the Legal Sub-Committee at its twentieth session.

Mr. RAJAN (India): First of all, we warmly welcome the new members of the Committee, whose valuable contributions and national experience will substantially improve the scope of the various tasks being undertaken by the Committee.

We are also very pleased to see Ambassador Jankowitsch presiding over this Committee once again and we are confident that, as before, his skilful and expert guidance will lead this session to a successful conclusion. We are completing, with this twenty-fourth session, just over two solar cycles and our progress in dealing with complex matters concerning space within this short period has been quite remarkable, though not fully keeping pace with the progress of the use of space technology.

(Mr. Rajan, India)

We should also like to express our appreciation for the work of the Chairmen of the two Sub-Committees, Mr. Carver of Australia and Mr. Wyzner of Poland. Besides expressing our gratitude for the continuing valuable contribution of the Outer Space Affairs Division, we should like especially to record our appreciation of the excellent services rendered by Mr. Padang, the Expert on Space Applications, who has now moved elsewhere in the United Nations. We wish him well and we hope that the post of Expert will soon be filled by an able specialist to continue the excellent work done by the previous Experts.

Before commenting on some of the important matters before us, I should like to say a few words on some of our national activities, which are entering a new phase after successful completion of the tasks set forth in our "Space profile of the seventies".

The two successful launches of two ROHINI satellites by our first-version launch vehicles SLV-3 from our launching station at Srihari Kota marked the high point of our predominantly self-reliant efforts. These flights, while giving us confidence in tackling complex tasks of space technology, have given us valuable insights into the practical difficulties of launching satellites and the hard work involved in harnessing the technology for practical uses. On the basis of these actual experiences, we have organized projects to continue the SLV-3 launches, to develop augmented SLV-3 vehicles and, finally, more powerful Polar Satellite Launch Vehicles (PSLV).

Utilization of Bhaskara TV camera imageries and the data from the Bhaskara microwave radiometers has continued; some of these results have been presented in international seminars. Work on the second model of Bhaskara, to be launched with a Soviet rocket carrier towards the end of this year, is progressing satisfactorily.

(Mr. Rajan, India)

Considering the useful work done in the country in the various applications of remote sensing, the major remote sensing activities in the country have been organizationally optimized. This has been considered necessary in order to meet the demands of the immense work involved in the development and use of the Indian Remote Sensing Satellite (IRS) scheduled for launch in the mid-1980s. India is also actively participating in various international seminars and conferences and exchanging information on experience and plans in remote sensing. We believe that it would be useful if many more countries participated in such interactions to enrich the experience of remote sensing applications and to optimize various efforts.

Another high point in our efforts was the launching of our first geosynchronous satellite, called APPLE (Ariane Passenger Payload Experiment). This is not only an important milestone in our self-reliant efforts in satellite communications, but also an excellent example of the valuable international co-operation which has been a judicious component in our efforts. We take this opportunity to extend special congratulations to the European Space Agency (ESA) and the member States of ESA on the successful launching of Ariane.

Another major project, the multi-purpose geostationary satellite project INSAT-1, is progressing satisfactorily. We are happy to inform the Committee that our Government has taken a decision to make the meteorological imageries from INSAT-1 available to interested countries.

We are pleased to note that on the international scene developments in space activities during the past year have been remarkable. Notable among these are the successful flight of the Space Shuttle Columbia and the achievements of the Soviet Union in long-duration manned flights and joint flights with team-members from other countries.

(Mr. Rajan, India)

Our bilateral co-operative efforts in space research with the space institutions of the ESA, France, the Federal Republic of Germany, the United States and the USSR have continued with vigour. We have recently concluded an agreement with the United Kingdom on space research. We hope to increase our bilateral contacts with many countries, in order to share experience together.

I come now to the major issues to be dealt with by the Committee. We are quite confident that the Committee, with its tradition of co-operation and consensus, will resolve the problems relating to the organization of the UNISPACE-82 Conference and will address the main issues concerned with the substance of the Conference. We are hopeful that the great interest shown by all the member States will ensure its being conducted in such a way as to show to many, in concrete terms, the practical benefits of space and, more importantly, to assist the developing countries to realize their own potential for the utilization of space technology. It is this experience in self-effort, the will to invent and create systems suited to oneself that is the challenge we all have to face and share.

Regarding the principles for international direct broadcasting, we note with satisfaction that considerable material exists to assist us in arriving at a satisfactory conclusion of an agreed version. We should, however, like to point out that the basic principles of national sovereignty and the resultant requirements of prior consultation and consent are important elements to be protected.

Coming now to the question of remote sensing, we should like to reiterate, as we have done in the past, that we should discuss in the Committee rather carefully the issues and fears related to the other side of remote sensing, namely, surveillance. We feel that serious discussions would be required before we could successfully conclude principles governing remote sensing. We would need to speed up work on this matter to maximize benefits from remote sensing, especially for countries which may not require an independent space segment of their own.

(Mr. Rajan, India)

The work done so far on the nuclear power sources (NPS) is commendable and this should continue. As we stated earlier, the question of the delimitation and definition of outer space is an important but complex issue. We need to discuss various issues in some detail to understand the implications and to arrive at some agreement.

Last but not least, our delegation would like to express its concern over the increasing trend to put space to aggressive and destructive uses. We hope our Committee will find ways to discuss such issues and methods to avoid such possibilities.

This concludes the general comments of our delegation. As different subjects arise for discussion, we may come back with further comments.

Mr. MATHANJUKI (Kenya): Allow me, Sir, to add my delegation's voice to those others who have expressed their confidence in Ambassador Jankowitsch's continued chairmanship of this Committee. We believe that with his guidance and leadership, this Committee will tackle the issues before it successfully. The scope of the work of this Committee is rapidly expanding and it is the sincere hope of my delegation that the Committee will convert our discussions and the ideas generated here into reality for the benefit of all mankind. In this regard, my delegation assures him of its fullest co-operation.

Turning now to the reports of the two Sub-Committees, my delegation would like to place on record its appreciation of the work of the two Sub-Committees, and in particular the chairmanships of Mr. Carver of Australia and Mr. Wyzner of Poland. My delegation intends to confine itself to some of the items covered in the said reports.

Regarding elaboration of principles governing the use by States of artificial earth satellites for direct television broadcasting, my delegation's views remain unchanged. Whilst we agree that freedom of information is a fundamental right of an individual to be guaranteed, we feel that even under national constitutions that freedom is not entirely an absolute right: it is often made subject to the right of others to the enjoyment of their freedom. So also is that right further limited in the interests of the maintenance of public order and security. To our mind, the right to seek, receive and impart information and ideas through any media, regardless of frontiers, cannot be an absolute right. If one does not seek information of the kind contemplated, one's right not to receive it should by the same token be respected. Thus, if a State wishes to provide a broadcast service to another State, the broadcasting State should first of all seek and obtain the consent of the intended receiving State before doing so.

We, however, feel that the Legal Sub-Committee is proceeding in the right direction. We sincerely hope that on the basis of annex IV of document A/AC.105/288 the Committee will conclude its deliberations on this subject during the current session.

I now turn to the question of geostationary orbit. We have in the past stated that the sovereignty of equatorial countries, of which mine is one, extends to the segments of the geostationary orbit above those countries. The limit

(Mr. Mathanjuki, Kenya)

of outer space is not defined within the 1967 Treaty on Outer Space: neither is there a generally accepted definition and/or delimitation of outer space. Thus there is no valid ground on which to dispute the claim by equatorial countries of sovereignty over their geostationary orbit. The geostationary orbit is a physical fact linked to the reality of our planet, in so far as its existence depends exclusively on its relation to gravitational phenomena generated by the earth.

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

Already we understand that the total number of objects currently in the geostationary orbit stands at approximately 100, with possibilities of increasing that number by a similar amount. We also read from the report of the last session of the Scientific and Technical Sub-Committee that there exist real dangers that accidents may occur involving objects placed in that orbit, which could create untold damage both to the environment and to living resources, including human beings. It could be worse if, as we are informed, the objects involved are nuclear-powered sources. Thus, our concern to have a say in the placement of these objects in our segment of the geostationary orbit is indeed justified and well founded. It is my delegation's view, therefore, that the moment has come when a working group should be established to tackle issues of the geostationary orbit and definition and/or delimitation of outer space.

We welcome the efforts being made, in particular by the United Nations Expert on Space Applications and also by the Outer Space Affairs Division, in organizing seminars, panels and training workshops in the field of outer space and in securing fellowships and training facilities for developing countries. We thank all those countries that have contributed towards this whole objective and appeal to other States to step up their assistance in this field to developing countries. It is realized that co-operation in this technical field can only be achieved through provision of training facilities to those States currently not in possession of such capability.

(Mr. Mathanjuki, Kenya)

Now turning to preparations for the 1982 United Nations Conference on the Exploration and Peaceful Uses of Outer Space, my delegation would like to place on record its appreciation of the work being done by the Preparatory Committee and the Conference's Secretary-General, Mr. Yash Pal. We also note that background papers have been prepared; however, only a few national papers have been received. We urge those States that have not presented their papers to speed up their preparation. In our paper we have indicated that in Kenya outer space technology has been applied in the areas of communications, meteorology and remote sensing. It is to be noted also that a committee has been established within the National Council for Science and Technology to survey, review, evaluate, and advise the Government on, the scientific and technological aspects of space activities. In satellite communication, Kenya is extending its communications network, including satellite communications, to serve the rural areas. The possibility of collaborating on such projects with other countries in the African region is being investigated.

Remote sensing has been applied in crop detection, soil survey, cartography, disease and pest detection, environmental studies and in geological, forest and habitat mapping. These activities will be expanded in future and this in turn calls for expanded training and the acquisition of better facilities for receiving and processing remote sensing information. Recognizing the need for co-operation in remote sensing, Kenya has embraced the objectives of the African Remote Sensing Council (ARSC) and calls for assistances from international bodies, including the United Nations system, bilateral aid agencies and other interested bodies, to assist the African countries to fulfil the objectives of the ARSC.

It is noted with concern that satellite technology and components keep on changing. The corresponding ground parts are expensive and it would be difficult for most developing countries to keep up with these modifications. For the majority of the nations to benefit, the following should be considered: encouraging nations and organizations involved in launching of satellites to develop compatible systems so that information emanating from satellites of different families can be received using general ground receiving stations;

(Mr. Mathanjuki, Kenya)

giving long-term guarantees that space technology will be available at prices that can be afforded by developing countries; and encouraging and assisting Governments to set up regional programmes in space activities in order to reduce the cost of applying technology to development.

The application of satellite technology requires highly-trained manpower. It is therefore essential that the training of manpower should be accorded priority at the national, regional and international levels. The understanding of space technology should be extended to cover all levels of manpower, including decision-makers, user groups and technical personnel. At another level, the understanding of space sciences such as astronomy, astrophysics and research activities related to space science should be encouraged and supported, especially in developing countries. A good understanding of space science will have major spin-off in the development and application of space technology.

The current and the proposed space activities necessitate the setting up of an effective co-ordination machinery. The United Nations system should play a big part in effecting this co-ordination, especially in training and the dissemination of information. At another level, the United Nations system should expand to monitoring programmes and encourage research in areas of global interest.

It is our expectation that the Secretary-General of the Conference, whilst carrying out other pre-Conference publicity activities, will find time to visit various developing countries to impress on them the importance of the upcoming UNISPACE-82. My delegation supports all activities that increase greater public awareness about outer space, it being recognized that it is the common heritage of mankind.

Mr. ALONSO BURON (Spain) (interpretation from Spanish): The Spanish delegation would like to express its thanks for the welcome extended to it by the Chairman and by representatives of other countries who have spoken. Spain will spare no effort in this Committee to try to achieve positive results.

My country considers that the activities of man in space represent the last frontier for mankind. Hence, their regulation should be regarded as a pressing requirement so that space may be an area for co-operation for the common good of mankind. This idea of the common heritage of mankind excludes, of course, military activities that would transform space into a new area for conflict. This idea of the common heritage means that the guarantees offered by States engaged in activities in outer space should be as broad as possible, so that there should be no hint or suspicion concerning the kind of activities being carried out over third States which are without the means to prevent them.

As for remote sensing, Spain feels that the transparency of information received should be safeguarded, that unconditional access to such data must be guaranteed, that their diffusion should be restricted and that there should be prior indication of the beginning of remote-sensing activities. In view of the nature of the means used for the exploration of land from space, and the uncertainty surrounding their return to earth, Spain defends the principle of responsibility, as already set forth in the Outer Space Treaty.

As for the regulation of direct television broadcasting by satellites, Spain welcomes the progress made during the meetings of the Legal Sub-Committee at Geneva. My country considers, together with previous speakers, that it is necessary to reconcile the principles of freedom of information and the right to the legitimate use of outer space, and also that the sovereignty of others must be respected. If we wish to be realistic and consistent in a world which is legally and politically divided into separate sovereign States, the freedom of each individual must be balanced by the right of others not to receive unwanted television programmes.

A whole speech could be made on freedom and the right to inform and to be informed independently of the existence of legal and political frontiers. But it would not be possible to confine this whole question within the limits of the problem before us now. If we want juridical regulations of direct television broadcasting by satellites, it is essential to have the views of those States which wish to protect themselves from any damage that might be done them by such

(Mr. Alonso Buron, Spain)

broadcasting and from aggression or penetration by or from States whose philosophy or whose laws are different or which belong to different ideological, political or social systems.

If it is a reasonable compromise we want, then we think that the "negotiating text" is indeed reasonable. Specifically we think that the four principles of responsibility, the duty and right to consult, consultation and agreements, and the peaceful settlement of disputes that are present in the "negotiating text" are generally acceptable.

My country attaches great importance to the question of the use of nuclear power sources in space and we feel that the time has come to move on from pure theory to concrete reality. We therefore feel that a beginning should be made on draft principles on this issue. Also on this aspect, Canada's contribution seems highly constructive, but my country defends a specific reference to the principle of international responsibility of the launcher State for any accident with a spacecraft carrying a nuclear power source.

My country feels that in regard to the delimitation of outer space we are going to get involved in zonal regulation, whereas in our view, the real problem is not one of limits, but of activities and types of activities. Outer space law has been developing vigorously up to now even without a definition of outer space and it is likely that it could continue.

The geostationary orbit is such that it calls for special regulations. It would not be fair to allow time to pass and "first come, first served" to continue to be the principle governing the use of the geostationary orbit. The establishment of a working group seems a commendable idea, and it should have the specific mandate of finding out whether the right conditions exist for giving priority treatment to this item.

In the next few days, my delegation will make these ideas clearer in an open-minded spirit and with the aim of seeking agreement so as to give the lie to any scepticism shown as regards the work of this Committee.

(Mr. Alonso Buron, Spain)

My delegation, together with other European countries, will submit a report to the Conference. As a member of the European Space Agency and also in a purely bilateral framework, Spain is carrying out a policy of active co-operation in space and has several facilities on its territory. We are also carrying out purely national activities that will quite shortly show a great advance, and I am sure this will contribute to widening that last great frontier I referred to at the beginning of my statement.

The meeting rose at 6 p.m.