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COMMITTEE ON THE PEACEFUL USES OF OUTER SPACE

VERBATIM RECORD OF THE ONE HUNDRED AND THIRTEENTH MEETING

Held at Headquarters, New York,  
on Thursday, 7 September 1972, at 3 p.m.

Chairman: Mr. JANKOWITSCH (Austria)

- Consideration of the reports of
  - (a) The Legal Sub-Committee (continued)
  - (b) The Scientific and Technical Sub-Committee, including the summary of the preparatory session of the Working Group on Remote Sensing of the Earth by Satellites (continued)

This record is issued in final form pursuant to the decision taken by the Committee in September 1970 (see Official Records of the General Assembly, Twenty-fifth Session, Supplement No. 20 (A/8020, para. 10)).

## CONSIDERATION OF THE REPORTS OF

- (a) THE LEGAL SUB-COMMITTEE (A/AC.105/101) (continued)
- (b) THE SCIENTIFIC AND TECHNICAL SUB-COMMITTEE (A/AC.105/102), INCLUDING THE SUMMARY OF THE PREPARATORY SESSION OF THE WORKING GROUP ON REMOTE SENSING OF THE EARTH BY SATELLITES (continued)

Mr. FRUTKIN (United States of America): Mr. Chairman, let me begin by congratulating you on your assumption of the leadership of the outer-space Committee. We are confident that you will follow with distinction in the footsteps of your predecessors, Ambassadors Haymerle, Matsch and Waldheim. We also wish to congratulate Ambassador Datcu on his becoming Vice-Chairman of this Committee.

This has been another active and productive year in the development of international co-operation in the exploration and use of outer space. Several landmark events have particularly concerned the relationships in this field between the United States and other countries. I believe that it will be useful to review a few of these.

I am pleased to be able to report on the status of the first satellite dedicated to the survey of earth resources, ERTS-1, which was launched successfully on 23 July. The data being obtained by the satellite's multispectral scanner are better than we had hoped. They should provide excellent material for analysis of the results of this experimental survey flight. We are particularly gratified by the very broad international participation in this work. Scientists of 37 foreign countries and two international organizations are participating in experiments which they have proposed and which have been selected on their merits for this purpose.

Members have before them an example of the satellite's scanner imagery taken over the San Francisco Bay area in California. If members will hold this composite -- it is a composite rather than a photograph -- so that the white area is to the lower left, they will then understand the references on the rear of the photograph. One can see the fog rolling in over San Francisco in the lower left; the sediment in the Bay can be seen in the lower centre; the city of San José can be seen in the bottom centre. The Sacramento Feather River system is slightly right of centre. Land-use patterns in the Central

(Mr. Frutkin, United States)

Valley can be seen throughout the photograph, running from upper centre to lower right, and the foothills of the Sierra Nevada are in the upper left.

The satellite's second imaging experiment, a Return Beam Vidicon, was turned off because of a power surge shortly after launch. Until then, it had provided data comparable to that acquired by the scanner. We hope that we shall be able to reactivate this system. Meanwhile, we shall attempt to meet the experimenters' needs with the data provided by the scanner.

The number of proposals we have accepted for the experimental use of ERTS-1 data totals more than 300. Almost one third of these -- 90 -- are from the countries and international organizations on the list we have circulated to all delegations, which should be on members' desks. I am pleased to note that 13 of the 28 members of this Committee are on that list.

The satellite imagery and the reports of investigators will be made publicly available as soon as possible after their receipt. Data catalogues and report lists will also be available. A NASA press release, which has been distributed to all delegations, describes the various sources from which the satellite data may be obtained.

This ERTS-1 project thus gives us a spacecraft in orbit which is returning earth survey data. The next step is to determine the usefulness of these data. For this, we look to the Principal Investigators. During the coming year -- before this Committee meets again -- we expect that Investigators will be progressing in their analyses and thus contributing significantly to the ability to judge the potential of satellite surveys.

To turn now to other aspects of our space effort, we are continuing a broad spectrum of programmes, including communications, navigation and the exploration of the outer planets. The United States Apollo lunar landing programme, however, is coming to a close. On 27 April, Apollo 16 returned from its visit to the Descartes region of the moon with all its primary objectives achieved, including inspection and survey, sampling of materials, emplacement of experiments on the lunar surface, in-flight experiments and photography. The final mission, Apollo 17, is scheduled to be launched on 6 December. It will visit Taurus-Littrow, a region of mountainous highlands and lowland valleys of the moon which will offer an opportunity to sample materials from large, steep-sided mountains and the dark, non-mare material filling the valleys.

(Mr. Frutkin, United States)

I can report with special pleasure that NASA is inviting each member of the United Nations and the specialized agencies to send a science-oriented teenager to tour scientific facilities in the United States and to attend the December launch of Apollo 17 to the moon at Cape Kennedy.

We are grateful for the assistance and encouragement we have received from other nations in the course of the Apollo programme. We are very proud of the extensive international participation in the analysis of some 600 pounds of lunar materials which United States astronauts have so far returned to earth. To date, 160 proposed investigations by 86 Principal Investigators in 18 other countries have been accepted. Together with other international participation, these investigations have greatly enhanced our exploratory and experimental capabilities. They have helped to make Apollo truly an achievement of all mankind in furthering knowledge of the moon and of the earth as well.

(Mr. Frutkin, United States)

With the Apollo programme nearing completion, we have for some time been considering the space systems of the future. On 5 January of this year the President announced his decision that the United States should proceed with the development of a space shuttle, a new type of space vehicle which will be capable of flying repeatedly from earth to orbit and back. NASA has now selected a prime contractor for the shuttle, and we are looking forward to a first horizontal flight of this new vehicle in 1976 and a first orbital flight in 1978.

The space shuttle will make space operations far less complex and costly. It will be used again and again, not discarded as present launching systems must be after one launching. The shuttle will have very considerable weight and volume capacity. In addition, the shuttle and its crew will be able to service, repair and recover spacecraft. For all those reasons, the design and fabrication costs of space payloads can be reduced materially. This will be an even more important source of economies than the re-use of the vehicle itself. In addition, scientists and technicians will be able to accompany their instruments into space without extended flight training.

As shuttle development proceeds, we will continue to be in touch with other countries -- to keep them informed of the opportunities to participate in the expanding field of space science and applications. Beyond this, we have invited other countries to participate in developing elements of the space shuttle system itself. At present the European Space Conference is considering whether it may wish to take responsibility for building a Sotie Laboratory, a manned laboratory suitable for conducting research and application activities as an integral element of the shuttle.

On 24 May President Nixon and Premier Kosygin signed an agreement which commits the United States and the Soviet Union to fulfil the NASA/Soviet Academy of Sciences agreement of January 1971 on space science and applications; to develop compatible rendezvous and docking systems for future generations of manned spacecraft; and to conduct a joint experimental flight during 1975 to test such compatible systems.

The agreement to conduct an experimental flight jointly with the USSR in 1975 is the outgrowth of efforts under way since October 1970 to define

(Mr. Frutkin, United States)

requirements for compatible rendezvous and docking systems in future manned spacecraft. If compatible rendezvous and docking capability is successfully demonstrated, both countries will have increased their chances of rescuing astronauts in distress without commensurate increases in the costs of stand-by rescue capabilities. Furthermore, a successful mission would open the way to joint activities in space.

In the larger view of things, we believe that the joint test mission, an intricate and complex goal which depends on the skill and good faith of both countries, should contribute to mutual confidence and trust. We hope that United States and Soviet spacemen meeting in orbit before the eyes of the entire world will help improve attitudes, viewpoints and expectations among men everywhere.

Let me turn now to certain matters on the agenda of this Committee stemming from the reports of the Legal and the Scientific and Technical Sub-Committees, as well as the request of the USSR for the inclusion of a convention on satellite television broadcasting on this year's General Assembly agenda.

I want to take up first the question of a moon treaty. Members will recall that last fall the United States expressed a certain degree of reserve towards the draft treaty which had been introduced first in this Committee and then in the General Assembly. We stated the view that to be worth the time and energy required of Member States in its negotiation, the new treaty must promise to add in a worthwhile way to existing international law governing space activities, particularly the outer space Treaty of 1967. We were not convinced that the original draft text did so. We, of course, had no objection to referring the moon treaty to the Outer Space Legal Sub-Committee as the proper forum for detailed consideration, and we thus joined last year in the unanimous adoption of General Assembly resolution 2779 (XXVI) to that effect.

During the interim between the General Assembly session and the spring session of the Legal Sub-Committee, the various United States agencies concerned devoted intensive study to the draft treaty and agreed on the formulation of a number of additions and revisions which our delegation proposed in the Legal Sub-Committee. We regarded several of these modifications as especially important, since in our view their adoption would render the draft treaty a meaningful advance in international law.

(Mr. Frutkin, United States)

A careful reading of the report of the Legal Sub-Committee will reveal the extensive character of the United States proposals. By way of example, we proposed that the treaty should apply not only to the moon but to activities on other celestial bodies as well; that freedom of scientific investigation should be the guiding principle in the conduct of activities on celestial bodies; that exploring countries should accept binding obligations to report in detail on the conduct and results of their missions and should indicate well in advance of launch the intended purposes, locations and mode of conduct of their prospective missions; that exploring countries should likewise report in advance if their missions would involve the release of radioactive material in space or if their activities might affect the ecological balance of the environment of a celestial body; and that consideration should be given to the establishment of international scientific preserves for areas of celestial bodies having particular ecological and scientific interest.

We also proposed that exchange of personnel from missions launched by different countries should be encouraged; that unimpeded access should be guaranteed as a means of ensuring compliance with agreed limitations on specified military activities; that parties should be obliged to consult with one another in the event of differences between them, with any party entitled to ask the United Nations Secretary-General to lend his good offices in the event of any disagreement that might persist; that natural resources of celestial bodies should be the common heritage of mankind; that their use for scientific purposes should continue to be unimpeded; and that parties should declare their willingness to participate in a conference on the international sharing of the benefits of utilization of those resources at such time as utilization might appear to become practicable.

(Mr. Frutkin, United States)

We have been gratified by the positive spirit in which the Legal Sub-Committee considered our amendments and those proposed by a number of other delegations. I want to express my Government's appreciation of the significant degree of progress toward an agreed text achieved in just one session of the Sub-Committee, at which members approached the draft treaty with a degree of interest and engagement that might not necessarily have been expected.

However, several important issues remain unresolved. We are pleased by recent indications that one of our major proposals, to expand the scope of the treaty to cover activities in relation to other celestial bodies in addition to the moon, has been accepted in principle by a large number of delegations. Nevertheless, the formulation of this expansion of scope remains unsettled.

Resolution is less clearly in sight with respect to two other issues to which we attach considerable importance: the question of advance notification of missions to the moon and other celestial bodies, and the question of principles governing exploitation of natural resources of celestial bodies. As was evident in the Legal Sub-Committee, they are complex questions requiring careful consideration.

In our view, it would be preferable to undertake intensive consideration of these remaining issues and the drafting and organization of the treaty text at the next session of the Legal Sub-Committee, when there would be more time and when delegations would be better prepared to deal with these matters. We think there is reason to be confident that work on the treaty could be finished in one more session of the Sub-Committee, given the same attitude of good will and mutual accommodation of views that prevailed this year. In this connexion, we would like to reiterate our praise for the impartiality and leadership of the Chairman of the Legal Sub-Committee, Mr. Eugeniusz Wyzner of Poland, and for his contributions to the process of mutual accommodation.

This approach to further work on the treaty reflects our considered views. We, of course, retain an open mind with respect to the views of other delegations.

I would like now to say a few words concerning the proposal for a convention on the direct broadcasting of television from satellites. The United States considers that this subject can be approached only with the greatest caution.

(Mr. Frutkin, United States)

We believe deeply in the free flow of ideas and information. It is in good measure on that freedom that democratic societies are based, whether those societies are national or international in character.

In affirming this deep belief, I want to stress that we do not advocate license or provocation in the exercise of freedom of information. Indeed, within our own country there are laws, judicial decisions, administrative arrangements, and voluntary codes designed to protect the fundamental right to freedom of information while, hopefully, minimizing its abuse. The formulation of guidelines that are consistent with and protect the free flow of ideas and information is an extremely difficult question even within a national society; how much more difficult must it be among societies which have very different concepts of the role and importance of freedom of information. In our view, any effort to develop such guidelines must without question bear the burden of proof that it will not impede that free flow of information which, we repeat, is fundamental to our own society and the effective functioning of a world society.

With those fundamental principles in mind, I would like to convey my delegation's views regarding an optimum approach to procedural questions raised by the USSR initiative. We have noted with interest the proposal by the representative of Sweden, Ambassador Rydbeck, to reconvene our Working Group on Direct Broadcast Satellites to consider such matters as technical developments in the direct broadcasting field, the Soviet convention, and the UNESCO draft declaration of guiding principles on the use of satellite broadcasting. We believe, however, that the Working Group's terms of reference should focus on technical aspects of satellite direct broadcasting, a technology which is still well in the future. We could agree that the Working Group could usefully re-examine and, as appropriate, update the conclusions it reached in 1969 regarding the state of the art in direct broadcasting technology. Unless those conclusions are found to require major revision, we do not consider that legal aspects of direct broadcasting should be assigned any special priority in the Outer Space Committee or the Committee's subsidiary bodies. I might note that in so far as legal aspects are concerned, the Legal Sub-Committee already has this matter on its agenda.



(Mr. Frutkin, United States)

We think, also, that the Outer Space Committee should have an opportunity to look at the UNESCO draft declaration and consider its contents. The United Nations has long agreed that this Committee should be the focal point in the United Nations system for co-ordinating international activities relating to the peaceful uses of outer space. So we concur in the general feeling that the General Conference of UNESCO should be asked to give the Outer Space Committee an opportunity to fulfil these responsibilities.

In connexion with the work of the Scientific and Technical Sub-Committee, the past year has seen the organizational meeting and subsequent activity of the Working Group on Remote Sensing of the Earth by Satellites. On the whole, we consider that the Working Group is so far fulfilling its mandate successfully. This is particularly true as regards technical aspects and the potential utilization of remote sensing by countries with varying needs and in varying stages of development. We would remind delegations, however, of our original agreement that the Working Group would give priority attention to assessing the technical results of the ERTS-1 experiment before attempting to engage the difficult legal and organizational issues involved in this field. We would ask, in fact, whether in due course it would not be more appropriate to consider the legal and organizational aspects of earth resource surveying entirely in the Legal Sub-Committee.

The Outer Space Committee is soon to lose one of its valued colleagues. I do not want to miss this opportunity to express the appreciation of the United States for the energetic and effective service over the past two years of the Expert on Space Applications, Professor Humberto Ricciardi of Argentina. With his programme of panels and experts' meetings, Professor Ricciardi has done much to expand the informative function of the United Nations in the space field, promoting realistic awareness in many countries of the potential practical benefits of the various applications of space technology. The most recent project in this area, which was from all accounts a success, was the panel on earth resources surveys held in Brazil. The United States is pleased to recall that it was host to the first in the series of these panels.

(Mr. Frutkin, United States)

We believe that Professor Ricciardi is leaving a valid on-going programme for his successor. We wish him well as he returns to his private career.

In conclusion, I would like to take note of the special value which the United States places on the work of the Outer Space Committee and its subsidiary bodies. Operating on the basis of consensus, and thus requiring understanding, flexibility and mutual accommodation of interests on the part of all members, the Committee has recorded significant accomplishments in developing international co-operation in the peaceful uses of outer space. In the year to come, the United States will not be found wanting in the spirit which has made these accomplishments possible.

The CHAIRMAN: I thank the representative of the United States for his kind words about the officers of the Committee and, if I may speak on his behalf, about Professor Ricciardi.

Mr. CHAKRAVARTY (India): Mr. Chairman, may I at the outset offer to you my delegation's warm congratulations on your election to the chairmanship of this Committee and also express our firm hope that under your able leadership the Committee will be able to carry out the mandate given to it by the United Nations General Assembly. My delegation would also like to convey its gratitude to your distinguished predecessor, now the Secretary-General of the United Nations, for his continuing interest in the activities of this Committee and also for the message he gave us in his opening address, wherein he emphasized the vital role expected of this Committee in ensuring that the exploration of outer space will take place in an orderly and peaceful manner, in the interest of all nations regardless of their economic development. My delegation also wishes to congratulate Ambassador Datcu of Romania on his election to the vice-chairmanship of this Committee.

We are living in an age where the uses of outer space have brought about what a distinguished British international lawyer called "a reduction of the scale of the earth and its neighbourhood". The new technology required for increasingly difficult space missions has been advancing at a tremendous rate. We stand on the threshold of space exploration that is truly spectacular and fascinating. While it is true that the great benefits to come from space activities are probably still unseen and unpredictable, the over-all picture is one of definite promise.

Corresponding to the astonishing progress made in the field of space technology in the last decade or so, the United Nations has been able to establish milestones in what the Chairman of the Legal Sub-Committee called in his statement "the international law of outer space" (110th meeting, p. 41), as is evidenced in the 1967 Space Treaty, the 1968 Astronaut Agreement and the 1972 Liability Convention. It cannot perhaps be said that in this field law has not kept pace with the new advances in science and technology.

(Mr. Chakravarty, India)

While the penetration of time and distance barriers by astronauts --- the envoys of mankind --- unfolds immense practical benefits for the international community in general, there is at the same time the challenging task of building up durable international threads of co-operation and peaceful coexistence that bind nations together and create new systems of law and order. The conquest of space should not become a source of new frictions or a symbol of new power positions; rather, it should promote international co-operation in the peaceful uses of outer space. My delegation welcomes the United States-Soviet Union agreement of May 1972 concerning the exploration of space, in particular the joint docking of American and Soviet spacecraft and stations envisaged for 1975. We also congratulate the United Kingdom and Japan on their successful launching of scientific satellites, and the Soviet Union and the United States of America for their continuing exploration of the planets Mars, Venus and Jupiter.

We have before us the reports of the Legal Sub-Committee and the Scientific and Technical Sub-Committee. Taking up first the report of the Legal Sub-Committee, my delegation is happy to note that commendable progress was made by the Legal Sub-Committee at its eleventh session in the formulation of draft international agreements concerning the moon and registration of space objects, and, as the Chairman of that Sub-Committee said, "much was done and much was achieved" (110th meeting, p. 27)

The Soviet Union and Argentina deserve to be congratulated on their commendable initiative in drawing our attention to the pressing questions arising out of the exploration of the moon and the consequent need for their legal regulation. The Soviet delegation, in particular, submitted to the twenty-sixth session of the General Assembly an elaborate draft international treaty concerning the moon. This draft treaty, together with a number of substantive proposals submitted by other delegations at the last session of the Legal Sub-Committee, constituted the basis for the Legal Sub-Committee in preparing the text of a draft moon treaty consisting of a preamble and the provisions of twenty-one articles, including the final clauses.

(Mr. Chakravarty, India)

Mr. Chairman, you have already drawn our attention to the outstanding issues concerning the moon treaty. My delegation's position on some of these fundamental questions was generally made known at the eleventh session of the Legal Sub-Committee. We believe that it is now an accepted norm of international law that outer space, including the moon and other celestial bodies, is not subject to national appropriation, and that the natural resources of the moon and other celestial bodies are the common heritage of mankind. Any other view is incompatible with the nature of the moon and other celestial bodies, which are the province of mankind. Any other view is also incompatible with the affirmation and reaffirmation by the United Nations that the benefits deriving from space exploration shall be extended to States at all stages of economic and scientific development. My delegation, together with the delegation of Egypt, therefore submitted a joint working paper in the Legal Sub-Committee, which is contained in document A/AC.105/101 at page 17.

The other important question on which agreement has not yet been reached pertains to the scope of the treaty, namely, whether the treaty should be made applicable to other celestial bodies as well. While my delegation would favour the extension of this treaty to other celestial bodies, we are willing to consider, as a compromise solution, a suggestion made in the Legal Sub-Committee according to which

"The provisions of this treaty shall apply to celestial bodies in addition to the moon until such time as provision is made by other treaties in relation to specific celestial bodies. To the extent that provisions is so made, the treaty shall then cease to apply to those bodies."  
(A/AC.105/101, para. 21, foot-note 4)

My delegation would also wish to offer its sincere congratulations to the delegations of Canada and France for the timely initiative they took in submitting a joint proposal in the Legal Sub-Committee for a convention on registration of objects launched into outer space. An adequate and effective international system of registration of space objects would contribute significantly to the identification of space objects and would facilitate the application of the Convention on International Liability for Damage Caused by Space Objects and the Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space. We hope that this item will continue to receive priority consideration in this Committee and its Legal Sub-Committee.

(Mr. Chakravarty, India)

In retrospect, we notice that on the preparation of a draft moon treaty the Legal Sub-Committee has come "remarkably close to conclusion" (110th meeting, p. 27). Mr. Chairman, my delegation associates itself with the expression in the statement made on 5 September of

"... a moderate amount of optimism on the chances of finalizing this treaty, perhaps in the course of this session, and transmitting it to the twenty-seventh session of the General Assembly for final approval." (110th meeting, p. 18)

What we need is the continuation of the spirit of compromise and accommodation that pervaded the deliberations of the Legal Sub-Committee in evolving agreement on a number of fundamental questions concerning the moon treaty. Our task is not mainly that of a draftsman of international agreements; we are called upon to make, in the words of Professor Manfred Lachs, "law progress and move". In discharging this task we should not think in terms of the distinction often drawn between space Powers and non-space Powers. It is appropriate in this connexion to bear in mind what Mr. C. Wilfred Jenks, a distinguished international lawyer, said:

"Another danger which must be watched with special care during the formative stages of the development of the law on outer space is that States which are at present space Powers may be apt to think of themselves too exclusively as space Powers rather than as States which may some day be affected by the space activities of others, while States which are not at present space Powers may be too apt to think of themselves as potential victims of the activities in space of others rather than as potential participants in such activities. These instinctive attitudes do not necessarily reflect the long-term interests of the States of either group." (Space Law, 1965, p. 315)

Having said that, I should like now to make a few observations on the report of the Scientific and Technical Sub-Committee on its work at its ninth session. My delegation is thankful to the Chairman and the members of the Sub-Committee for the tribute they have paid to the memory of



(Mr. Chakravarty, India)

the late Mr. Vikram Sarabhai, who has made significant contributions to outer space technology.

I am happy to note that the Sub-Committee has expressed its satisfaction with the successful continuation of the United Nations programme on space applications. My delegation fully endorses the Sub-Committee's appreciation of the outstanding work carried out by Professor Ricciardi, the first United Nations Expert on Space Applications. My delegation is indeed grateful to Professor Ricciardi for the help and assistance we have consistently received from him in respect of the programmes on space applications conducted in India. I might add that Professor Ricciardi ungrudgingly placed his expert knowledge and competence at the service of the developing countries. It is a matter of regret that Professor Ricciardi could not stay with the United Nations for some time more, but I hope that his expert knowledge and advice will still be available to the United Nations and that his successor will be able to maintain the very high standard set by him.

In paragraph 18 of its report (A/AC.105/102), the Scientific and Technical Sub-Committee refers to the report of UNESCO on satellite broadcasting for education and training and to the importance for Member States of assessing their precise requirements for frequencies for the satellite broadcasting service in advance of the regional planning conferences which the ITU will call in accordance with the decisions of the World Administrative Radio Conference for Space Telecommunications. This will involve a detailed investigation of future radio and television needs, and UNESCO has indicated its preparedness, on request and in co-operation with ITU, to send advisory missions to assist in carrying out such surveys, in assessing future frequency requirements. It must be pointed out that in relation to satellite broadcasting allocation of frequencies is of vital importance, and I hope that the developing countries will take advantage of the offer made by UNESCO in getting their future radio and television needs assessed with a view to the allocating of radio frequencies.

(Mr. Chakravarty, India)

The Sub-Committee has rightly expressed its appreciation of the statements made by representatives of the Soviet Union and the United States on the programmes on manned laboratories in space. My delegation looks forward with very keen interest to further information on progress concerning this important programme. We have no doubt that, as a result of the placement of manned laboratories in space, it will be possible to extend the frontiers of knowledge and also to accelerate the application of outer space technology to problems on earth.

My delegation expresses its appreciation of the offer of fellowships made to the United Nations by Brazil, France, Italy, the United Kingdom, the United States of America and Japan in the area of space applications. This will certainly make it easier for the nationals of developing countries to get necessary training in space technology.

We are grateful to the Scientific and Technical Sub-Committee for the appreciation it has expressed of the work being carried out at the ranges in India in relation to the use of sounding rocket facilities for international co-operation and training in the peaceful scientific exploration of outer space. Its recommendation that the United Nations should continue to grant sponsorship to the TERLS Range in India and the CELPA Mar del Plata Range in Argentina is particularly welcome.

I should like at this stage to mention briefly the programmes on space applications being conducted in India. With the active co-operation and assistance of Professor Ricciardi, a Panel Meeting on Satellite Instructional Television Experiment is being organized in India in December of this year. This Panel, it is hoped, will illustrate to the other developing countries the immense possibilities of using satellite communication facilities for instructional and educational purposes.

India has been fairly active in the field of outer space technology. I do not wish to go into the details of the programme of our activities, but in document A/AC.105/106 will be found a summary giving particulars of rockets launched from the United Nations-sponsored Thumba Equatorial Rocket Launching Station (TERLS) in India during the period January-June 1972. These programmes have been made possible because of the co-operation and assistance that my country has received from the Soviet Union, the United States, the United Kingdom, West Germany, France and Japan, and we are sincerely grateful to them.

(Mr. Chakravarty, India)

The Indian Space Research Organization has been conducting a number of space experiments at the different stations in India. A Satellite Meteorological Centre was recently established in New Delhi, with five Automatic Picture Transmission Units set up in Bombay, Calcutta, Madras, New Delhi and Poona for obtaining cloud pictures from the weather satellites. The pictures of the major cyclones which affected India and the countries neighbouring it were well received through the systems. Some of the other programmes undertaken relate to study of vertical distribution of ozone, study of infra-red radiative fluxes in the atmosphere, surveys of ocean surface temperature, under-water topography of coastal belt, soil surveys, crop classifications, tree diseases, and so on.

India has been making considerable efforts to provide training in satellite communication technology at the Experimental Satellite Communications Earth Station in India. Several developing countries have made use of the training facilities provided by the Experimental Satellite Communication Earth Station, and we expect to hold further training programmes in the future.

Mr. BRUCE (Canada): Mr. Chairman, before I comment on the work programme, my delegation would like to join those other delegations who have extended to you congratulations and best wishes on your election as Chairman of the Committee. I should also like to join with other delegations in congratulating Ambassador Datcu of Romania on his election as Vice-Chairman. As you rightly pointed out at our opening meeting, Mr. Chairman, the responsibilities of this Committee will become heavier in the years ahead, and I am sure that the Committee will be leaning heavily on you and on the Vice-Chairman for guidance in our work. My delegation will do everything it possibly can to assist you.

This is the last meeting Professor Ricciardi will be attending with us, and on his departure from the United Nations at the end of this month he will be leaving behind a valuable programme of work, one designed to help developing countries in assessing what use they might make of satellites in planning their

(Mr. Bruce, Canada)

own economic development. My delegation would like Professor Ricciardi to know that we are very grateful to him for the very valuable work he has done in the two years he has been with us.

I should now like to comment on the detailed agenda before us, and I should first like to deal with the report of the Legal Sub-Committee, then with the report of the Scientific and Technical Sub-Committee, then with the proposal of the delegation of Sweden for re-establishment of the Working Group on Direct Broadcast Satellites, and then to conclude with some informal ideas on our future work programme.

It is clearly evident from the report of the Legal Sub-Committee and from the statement made by its Chairman at the beginning of this session that 1972 has been a productive year in our legal work programme. My delegation, like others, is especially grateful to Mr. Wyzner, who did so much to help the Legal Sub-Committee carry forward its work in a realistic and constructive way. His technique of searching out areas on which we could reach agreement and then identifying and marking unresolved points was used very effectively to contribute to the progress that was made in the two priority areas of the Committee's work: the draft convention on the registration of objects launched into outer space and the draft treaty on the moon.

With respect to the first, my delegation shares with our French colleague a deep sense of satisfaction at the amount of progress it was possible to make during consideration of the France-Canada draft registration convention, the text of which is attached to the report of the Legal Sub-Committee. Although no agreement was reached on some details, most of the important principles were accepted, thanks to the positive and conciliatory spirit which characterized the deliberations of the Working Group on Registration set up by the Legal Sub-Committee. We were particularly pleased that even though it was not possible to reach agreement on the type of detailed information to be provided to the Secretary-General there was no objection to the principle of furnishing to the Secretary-General information on objects launched into outer space.

We are conscious of the fact that notwithstanding the support expressed by many delegations for the France-Canada draft of the convention for the registration of objects launched into space, a few delegations were not convinced that there was a need for a compulsory international system of registration and therefore were obliged to reserve their positions. My Government continues to

(Mr. Bruce, Canada)

hold the view that the present voluntary registration system fails to provide an adequate foundation for the evolving international legal régime governing space activities and that what is needed is a comprehensive, fully accessible international system providing for compulsory registration, prompt provision of information and arrangements for the updating of this information. In our view, the costs of a system of the type embodied in the France-Canada draft would be relatively minor compared to the benefits. In fact, in order to keep the costs down, article VII-2 provides that States Parties should have full access to the information in the central register but does not require the Secretary-General to circulate the potentially copious information received. We presume that the Secretary-General would follow his usual practice of issuing an annual report summarizing the trends and statistics. We imagine that the Secretary-General may have to computerize the register as space objects are launched with greater frequency, but we consider that whatever additional costs might be involved would be justified and would be reasonable.

My Government realizes that any registration system established now will undoubtedly have to be more sophisticated in future years. However, we consider that an essential first step is contained in the France-Canada draft. We would propose that, as recommended by the Legal Sub-Committee in paragraph 31 of its report, the outer-space Committee should recommend that the Legal Sub-Committee in 1973 continue to give high priority to the subject of registration, a view that was also and eloquently expressed yesterday by the representative of Brazil.

It is our hope that individual countries will submit the draft text considered by the Legal Sub-Committee's Working Group to their technical officials so that, in consultations among interested countries between now and the Legal Sub-Committee's session in 1973, agreement can be reached on a generally acceptable text. It is our expectation, which we think reasonable, that the France-Canada draft will form the basis for a recommendation next year to the General Assembly to approve the text of a convention on registration of objects launched into outer space.

Mr. Chairman, as you noted at our first meeting, the Legal Sub-Committee also made remarkable progress in the consideration of its other priority subject,

(Mr. Bruce, Canada)

the draft moon treaty. In its preliminary comments on the Soviet draft treaty last September in this Committee and last November in the First Committee of the General Assembly, Canada looked forward to detailed consideration in the Legal Sub-Committee of the ways in which the Soviet draft repeated, elaborated or omitted the corresponding provisions of the 1967 outer-space Treaty. In particular, we referred to the need for more specific provisions concerning scientific research, liability for damage and consultative procedures. In our view, the scrupulous examination the draft treaty underwent in the Legal Sub-Committee's Working Group has greatly improved the text. And yet, as with all creations of man there is still room for improvement.

Although a number of differences of principle and detail remain, we share your view, Mr. Chairman, that outstanding points can be resolved if a spirit of co-operation and conciliation continues. My delegation would be willing to participate in any formal or informal consultations which may be organized to consider the sections which remain in square brackets. However, while we shall do everything we can to facilitate the earliest possible bridging of differences, we do not believe it is necessary or realistic to expect the General Assembly to have the final text to consider at its forthcoming session. On the basis of comments which have been made or will be made by various countries in the outer-space Committee and in the First Committee this autumn, the Legal Sub-Committee should be asked to put the finishing touches on the treaty at its 1973 session and then send it forward to the 28th session of the General Assembly, in 1973. As I have mentioned, my delegation sees no compelling reason for haste. Rather, we feel that the final text will benefit from a further year of contemplation and consultations.

(Mr. Bruce, Canada)

The Canadian delegation to the 1972 session of the Legal Sub-Committee expressed its preliminary views on the most important points which remain to be resolved. After further reflection, we continue to believe that the principles laid down in the moon treaty should also apply to other celestial bodies until such time as the international community agrees in a future treaty that they should be elaborated or modified in relation to a particular celestial body. We also believe that the treaty should affirm the principle that the natural resources of the moon and other celestial bodies shall be the common heritage of all mankind. It is true that at present we have only a vague idea of what resources may be found on the moon, but, in the view of my Government, it would be prudent to enshrine the principle now when we can only guess at what riches may be found. At an appropriate future time, an international régime providing for generally agreeable operational arrangements will have to be worked out to govern the exploitation of our common heritage. With respect to the obligation to provide information on moon missions, as proposed by the Canadian delegation at this year's session of the Legal Sub-Committee, a positive compromise would be to delete the word "completed" in article IV, subsection 3, and thus let individual States exercise their own choice, their own discretion, in deciding when to provide information.

I should now like to present for the consideration of this Committee the views of my delegation on the work of the Scientific and Technical Sub-Committee.

The recent launching of the ERTS-1 satellite represents an impressive step forward in what we are confident will be a new technology with important benefits for all nations. My Government congratulates the United States on its significant achievements in conceiving, designing and operating the ERTS satellite. We in Canada are grateful for the opportunity to participate fully in the ERTS experiment. Canada, for its part, has constructed and is operating facilities to read out and process the data relating to Canada that flow from the ERTS satellite. We view our bilateral arrangements with the United States as an important example in the evolution of international co-operation in remote sensing.

(Mr. Bruce, Canada)

The Canadian commitment to this programme is substantial. Canadian participation in the ERTS experiments has involved the development of an integrated interdisciplinary programme at an investment of about \$6.5 million, with annual operating costs estimated to be about \$1.5 million, exclusive of the applications and airborne sensing components.

It may be of interest to other delegations for me to describe briefly Canada's experience in remote sensing. The Canadian programme involves more than participation in the ERTS programme. Our programme is a pilot programme which combines observations from sensors in satellites, aircraft and on the ground. Although the goal of the programme is to develop practical applications of remote sensing, it is already clear that the development of many applications and their systematic use will require much more experimentation, particularly in the area of interpretation.

Canadian airborne sensing operations, using specially equipped aircraft, comprise a key sector of this programme. In addition, over 150 scientists and engineers in government, industry and universities are involved in experiments to utilize airborne remote sensing. Their studies are related to agriculture, land use, forestry, hydrology, geology, wildlife and oceanography, to mention only a few major areas. However, notwithstanding this broad spectrum of activity, we have not yet reached the stage where many uses have been put into systematic practice, except, of course, with respect to conventional aerial photography. Our current airborne programme is designed to develop a domestic market for remotely-sensed data and to assess the actual and potential priority needs of users by requiring them to pay for their data. This programme is expected to be financially self-sustaining in three years.

Direct Canadian experience with remote sensing from satellites has only begun with the launching of the ERTS-1 satellite. After less than two months of operation, it is, of course, much too early to make any over-all assessment of our participation in the ERTS programme and the uses to which these data can be put. However, we already consider that the quality of the images is sufficiently high to warrant geometric correction and enlargement to provide timely small-scale photomaps to meet the planning needs of many users.



(Mr. Bruce, Canada)

Nevertheless, our resource scientists consider that many scientific and engineering problems remain to be solved before the data can be used systematically to monitor our environment and observe our resources.

We believe that many countries will be interested in what we call our Quick Look Facility, which is part of our central readout station at Prince Albert, Saskatchewan, in western Canada. This facility, which can reproduce images of reasonably high quality, could be duplicated at other locations at the relatively modest cost of \$650,000, and we believe it could serve as a local user terminal in a global network. More elaborate regional centres could process images selected for geometric correction and automated processing.

I have given that survey of our Canadian experience to illustrate that while initial efforts to take advantage of this technology have been promising, we have a long way to go in the development of practical applications. My Government will continue to participate actively in the Working Group on Remote Sensing and its Task Force, which is exploring these applications. We welcome the fact that, as agreed at its preparatory session last May, the Working Group on Remote Sensing will study the legal implications and organizational requirements of remote sensing. My delegation realizes that it will be necessary to await greater knowledge of the potential uses and the limitations of the technology before we are in a position to agree upon definitive international arrangements to maximize the benefits to all nations. Moreover, we do not underestimate the difficult questions involved in harmonizing the sovereign rights of States with the obvious advantages to be gained by an international approach. However, we expect that the Working Group will point the way to practical international arrangements which represent a responsible and realistic balance between national and international interests.

I would now like to comment on the Swedish proposal to re-establish the Working Group. My delegation shares the view of the Swedish delegation that the Outer Space Committee, in the light of its co-ordinating role in

(Mr. Bruce, Canada)

promoting international co-operation in the developing field of direct broadcast satellites, should reconvene in 1973 its Working Group on Direct Broadcast Satellites in order to review the substantive developments that have occurred since its third, and last, session in May 1970. At that time the Working Group recommended that Member States and regional international organizations should promote and encourage regional arrangements at both the governmental and the non-governmental level as a practical first step to increase international co-operation in the rational use of direct broadcast satellite systems.

Since May 1970 there have been a number of pertinent developments, all of which are described in the Swedish aide-mémoire which has been circulated to all members of this Committee. We fully share the views expressed therein.



(Mr. Bruce, Canada)

My delegation considers that the Working Group on Direct Broadcast Satellites, which has both scientific and technical as well as legal responsibilities, would be the most appropriate forum in which to review these related developments in accordance with its mandate to formulate recommendations on the most effective way of making the benefits of this promising new technology generally available.

Finally, Mr. Chairman, I should like to respond to your opening remarks and to suggest one new area of work which we think this Committee and perhaps the Scientific and Technical Sub-Committee might consider as part of its work programme. As you pointed out and as the Secretary-General pointed out when he spoke to us on the first day, and as many members of this Committee have mentioned, the Outer Space Committee is the central organization in the United Nations system for consideration of the peaceful uses of outer space. A good deal of our attention has been devoted to the work of the Legal Sub-Committee. It has been assigned many important and interesting tasks and perhaps in its work has overshadowed some of the importance that should be attached to the work of the Scientific and Technical Sub-Committee. It has done good work but it has not had quite the importance that we think it should have in the work of this Committee. At the same time, we think it could do more. Satellites are becoming more widely used. The applications are becoming steadily more important, and the uses are now becoming available to most, if not all, countries in the international community. Yet there is much that public policy makers, economic planners, urban planners, environmentalists and the news media do not understand and do not know about satellites and the uses to which satellites can be put. Do they know -- do we know -- what satellites can do? Is it clear what satellites cannot do? What are the potential future uses of satellites? These are among the questions that the Working Group is facing. They are questions which undoubtedly Mr. Ricciardi has been facing for the past two years in working with developing countries. What I am suggesting is that I think that, because of the lack of awareness of public policy makers, economists, planners and so on, of what the potentialities are for satellites, this might be something we could ask the Scientific and Technical Sub-Committee to consider.

(Mr. Bruce, Canada)

Let me be more precise and suggest one particular area on which it might focus. Two months ago one of the major conferences, if not the most important, in the history of the United Nations was held in Stockholm, and the General Assembly this year will be considering the results of that conference, as will all the specialized agencies in the United Nations family and Member Governments. Among the decisions which were taken at Stockholm was the need to have more effective global monitoring of the earth's environment. This undoubtedly will be one of the major tasks that the new environmental organization, if the General Assembly approves it, will be faced with. It seems to my delegation that this Committee could make a valuable contribution to the work of environmentalists in carrying out the results of the Stockholm conference if we were to ask the Scientific and Technical Sub-Committee to explore this one single area in which satellites might be used. We might ask the Scientific and Technical Sub-Committee to examine a paper on the potential use of satellites in monitoring the earth's environment. In making this suggestion, I am not proposing that it should be an elaborate paper or an exhaustive paper. It should be a paper designed for the public policy maker. Indeed, this was one of the major purposes of the Stockholm conference: to bring to the attention of the public policy makers the major risks that we are facing in the environment today. Perhaps we can help them if this Committee, which has this responsibility, prepares a paper designed, as I say, for the general public policy maker, for the economic planner, for the economist and for the urban planner. This is by way of an informal suggestion. I put it to the Committee now in the hope that perhaps before the end of our deliberations next week other members of the Committee might consider it, and if they think it is worth pursuing we might include it in our report.

The CHAIRMAN: I am sure we shall bear carefully in mind the suggestions the representative of Canada has just made when we come nearer to the end of this session.

Mr. VALLARTA (Mexico)(interpretation from Spanish): Mr. Chairman, I wish to express to you and to our Vice-Chairman, Mr. Datcu of Romania, briefly but enthusiastically, the satisfaction of my delegation at seeing you guiding the deliberations of this Committee. We feel sure that you will in your own way show the ability which characterized your worthy predecessors.

With regard to our work, my delegation first of all wishes to thank the delegations of Canada and France for their initiatives on the question of the registration of objects launched into outer space, an idea to which Mexico attributes the greatest importance.

In accordance with article I, the second paragraph, of the Treaty on Principles governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies,

"Outer space, including the Moon and other celestial bodies, shall be free for exploration and use by all States without discrimination of any kind, on a basis of equality and in accordance with international law, and there shall be free access to all areas of celestial bodies." (General Assembly resolution 2222 (XXI))

This freedom of space navigation is in notable contrast with the full sovereignty which States exercise over superjacent air space over their national territories under international law. It would seem, then, that States, by recognizing the freedom of space navigation, believed that air space gave sufficient protection to make it possible for third parties to fly over their territories outside a still undefined superjacent air space, provided that such overflights had peaceful objectives. It should be remembered that the recognition of the freedom of space navigation arose several decades ago and that in 1961 the United Nations General Assembly did not create this freedom but merely recognized it as a previously existing institution of space law.

Now the proliferation of objects launched into orbit around the earth and especially the technological progress which today practically makes it possible to have access to the earth from outer space by the use of remote sensing satellites and direct transmission of radio and television make it necessary for us to work for a codification and development of space law which would govern the activities beyond this air space, especially when involving the use of orbits around the earth and the protection of the sovereign rights of States.

(Mr. Vallarta, Mexico)

How is it possible to achieve this order in space and this safeguarding of the rights of States? Common sense gives us the answer: by making of space activity an area which is open to public information and co-ordinated and regulated in such a manner that interference in space activities will be avoided and States will be assured of the innocent nature of objects flying in the outer space over their territories. Such co-ordination and such security can be achieved very effectively by means of a central registry under the responsibility of the Secretary-General of the United Nations.

On 20 December 1961 the General Assembly of the United Nations in one resolution unanimously recognized the principle that outer space is free for exploration and use by all States and called upon States to furnish information to this Committee on all objects launched into space, for the registration of launchings. It should be noted that the recognition of the freedom of space navigation and the recognition of the necessity of a registry were in 1961 really two sides of the same coin.

Subsequently, the General Assembly raised the status of the recognition of the freedom of navigation to that of an international treaty but at the same time allowed the registry to remain a recommendation -- a voluntary registry. This was a necessary step and it was taken because the development and the codification of space law required it; but now the time has come to give to this law the same balance which it had in its embryonic form in 1961 by means of the priority elaboration of a treaty on the mandatory registration of objects launched into outer space.

Furthermore, as my delegation said in the Legal Sub-Committee, such a convention on the registry is, in the opinion of the Mexican Government, only a logical step, a step which is both necessary and complementary and which should follow the treaties on the principles governing the activities of States in the exploration and use of outer space, including the moon and other celestial bodies, on the rescue and the return of astronauts and the return of objects launched into outer space and on international liability for damage caused by objects launched into outer space.

(Mr. Vallarta, Mexico)

My delegation is not unaware of the fact that there exist technical difficulties relating to making sure that objects launched into outer space can be identified after they have fallen or returned to earth. Nevertheless, my delegation believes that article IV of the draft treaty prepared in the Working Group of the Legal Sub-Committee contains a good solution to the technical and economic problems, since it speaks of an appropriate and feasible means of identification in the light of present scientific and technical knowledge. My delegation cannot agree with the thesis that this draft article would constitute a heavy burden for the launching State because its obligation is made conditional upon the feasibility and scientific progress achieved in this area. In any case, we should distinguish the mandatory registry under the Secretary-General from the identifying marks of a space object, since the technical difficulties of these markings ought not to hinder such registration. In other words, the technical difficulties in marking space objects or in identifying them after their return to earth should not be used in order to sidetrack the transformation of the present form of the registry from a voluntary to a mandatory one.

Finally, it should be recalled that several delegations submitted reservations to the conclusions of some of the States in the Scientific and Technical Sub-Committee which are contained in document A/AC.105/82. We emphasize that these conclusions were not unanimous and, therefore, it is not possible to speak of "conclusions of the Scientific and Technical Sub-Committee".

My delegation wishes to congratulate the Legal Sub-Committee and we are pleased at the progress that has been achieved on questions relating to the moon. My delegation will continue to give all its collaboration in order to work in the most effective possible manner on the draft articles presented by the Working Group of the Legal Sub-Committee. My delegation believes that in the future treaty on the moon and other celestial bodies a declaration should be made on the legal status of the moon and the other celestial bodies in order to see to it that all humanity can benefit equitably from the activities on the moon and other celestial bodies. At the same time, we believe

(Mr. Vallarta, Mexico)

that in the future treaty there should be a declaration of the legal status of the resources which might be obtained from the moon and other celestial bodies. It does not seem to us out of line to think about this, even though we have very little knowledge about the existence of these resources, because history has taught us that if in codifying and developing international law we do not foresee future situations, then law must remain far behind science, with the corresponding harm that this might bring about.

Also in respect of the draft article on the moon, we believe that in the future treaty there should be something about the obligation to distribute samples and data gained from scientific research and to share these with other States, whether space Powers or not.

In Mexico there will soon be a meeting of a technical group on meteorology under the auspices of the United Nations Programme on the Applications of Space Technology and of the World Meteorological Organization. Everything leads us to believe that this meeting will be a success. I should like to take this opportunity to thank Professor Humberto Ricciardi for his active participation in the preparations for this meeting. We regret that Professor Ricciardi will be unable to continue in the service of the United Nations and we wish him success in his future activities.

Finally, my delegation supports the initiative taken by Sweden for reactivating the Working Group on Direct Broadcast Satellites.

Mr. COCCA (Argentina) (interpretation from Spanish): The delegation of Argentina wishes to express its warm congratulations to the Chairman of the Committee on his election to carry out such an honoured and delicate task, and we are sure that he will discharge his duties as brilliantly as did his illustrious predecessor and compatriot, who now occupies the highest administrative post in the United Nations. At the same time I wish to express our congratulations to Ambassador Datcu of Romania on his election as Vice-Chairman.

In its statement, the delegation of Argentina will refer merely to some aspects of the agenda of the resumed fifteenth session.

With reference to the report of the Legal Sub-Committee, I cannot fail to express our gratitude for the support which was given to the proposal made in 1970 in document A/AC.105/C.2/L.71 concerning a draft convention on the principles which should govern activities for the use of the natural resources of the moon and other celestial bodies. That proposal, as was stated at the time, was submitted in the form of very general principles, for subsequent inclusion in a specific and complete convention, in accordance with progress that might be made in that field of knowledge, concerning not only the exploration of the moon but also advances in the systematization and formulation of new principles in the field of space law.

The basic principles that were proposed by my Government can be summed up in the following manner: the natural resources of the moon and other celestial bodies, including all material coming from those bodies, are a common heritage of mankind; the legal régime governing the natural resources when used in their place of origin, whether that be the moon or other celestial bodies, shall be different from that governing those taken to the earth for use there; the profits derived from the utilization of these natural resources shall be within the reach of all peoples, without any form of discrimination; those benefits shall be distributed bearing in mind the provisions of Article 55 (a) of the United Nations Charter; the interests and needs of the developing countries as well as those who carry on those activities shall be taken into account; and finally, there should be close international co-operation.

(Mr. Cocca, Argentina)

Following the submission of that proposal, Argentina continued to study and analyse this project in depth, particularly at the University of Cordoba and in the Argentine-Hispanic seminar on the régime of property on the moon, which was organized in Madrid during October 1971 and whose conclusions were communicated in the statement of the Argentine delegation at the 190th meeting of the Legal Sub-Committee. The concept of close international co-operation has also been an occasion for further thought in national conventions which have been held in Argentina during this year, at which the conclusion was reached that international co-operation, following the space Treaty, is a legal obligation which conditions the licit nature of the activity carried on in outer space and on celestial bodies, including space communications.

Our gratitude -- which the Argentine delegation wishes to make public -- is expressed first of all to the sponsors of drafts and proposals: to the Soviet Union for including some of these principles in its first version of the treaty concerning the moon; to the United States of America for including principles of the Argentine draft in its proposals, referring *inter alia* to the concept of the common heritage of mankind and a method of providing for the exploitation of the natural resources of the moon, as well as the need for working out a detailed criterion for this activity and arrangements for the distribution of benefits to be derived from the utilization of resources on the moon; and to India and Egypt for their joint proposal concerning natural resources, their character as the common heritage of mankind and the method for distributing these benefits.

Aside from the proposals which were submitted and whose texts are reproduced in the report of the Legal Sub-Committee, other delegations gave their views orally in support of some of the principles of the Argentine initiative: among others, the delegation of Canada stated that the treaty should contain a declaration that such resources are a common heritage of mankind; the delegation of Hungary pointed out that account should be taken of the interests of States which are not in a position to exploit the natural resources of the moon; the delegation of Poland, united with the



(Mr. Cocca, Argentina)

Argentine delegation since the very outset of our work to regulate human behaviour on the moon and a co-sponsor with Argentina of these proposals, demonstrated the need for distinguishing the question of the utilization of the natural resources on the moon from their transportation to the earth; the Egyptian delegation said that we should consider the natural resources of the moon as a common heritage of mankind and referred also to the distribution of the benefits among all peoples; the Indian delegation, in its oral statements, offered support for and recognition of this principle of common heritage of mankind, especially the equitable distribution of benefits; the Lebanese delegation, stated that the exploration and exploitation of the natural resources of the moon and other celestial bodies should be an international undertaking, that the international community as a whole should benefit from those activities and control them and that that would be possible only if we based ourselves on the principle that these resources are a common heritage of mankind; the delegation of the United Kingdom supported the basic idea that the natural resources of the moon are a common heritage of mankind and showed its willingness to support appropriate wording to cover the distribution of benefits derived from the exploitation of the natural resources of the moon and, finally, the idea of considering the legitimate interests of those who carry out

(Mr. Cocca, Argentina)

such activities; the delegation of Romania pointed to the co-operation of States and the need for all countries to benefit in a fair manner from the results of this process; the delegation of France, as sponsor, with Argentina, of the initial proposal for the order of priorities of this item said a specific convention should be included -- a convention concerning natural resources of the moon; the delegation of Bulgaria took the same view; the delegation of Iran maintained the concept of the common heritage of mankind for the natural resources of the moon and supported the idea of the benefits of exploitation being made available to all countries; the Mexican delegation spoke of the need for a specific status, which should be worked out without delay, to govern the moon and its natural resources.

The Argentine delegation also appreciates the fact that at meetings of the Working Group support was offered for incorporating some of the principles of the proposal of 1970 in the draft treaty we are now considering.

Although this is not the time to make specific comments on the matters dealt with in this draft, in the view of the Argentine delegation it is necessary to include -- either generally or in detail, as might be appropriate -- in the final text the question of the natural resources of the moon and other celestial bodies. Such inclusion is essential, since, fortunately, important activities have begun on the moon, and since this is a question which was not contemplated in the space Treaty. Such inclusion would give a special physiognomy and a special, singular nature to this international instrument, which otherwise would merely be developing those principles already contained in the Treaty. It would be legitimate to consider whether we could keep within the concept of the Treaty or, as was pointed out by the Brazilian delegation, whether it would be most appropriate to have an additional protocol.

Furthermore, the idea of a common heritage of mankind is basic to the law of space and space activities and it was from that principle -- the law of space -- that the new law of the seabed was derived, and not vice versa.

Notification and data regarding missions to the moon and the problem of responsibility for damage caused on the moon as well as other relevant provisions must be maintained in order to give a special physiognomy to this new international instrument.



(Mr. Cocca, Argentina)

Our delegation will co-operate as much as possible in the preparation of an international instrument relating to the moon.

As to the question of the registration of space vehicles, the Argentine delegation is pleased with the progress that has been achieved and congratulates the French delegation for its long-standing concern with this question. We also congratulate the Canadian delegation on the draft. And we congratulate both delegations for the evidence of good will and constructive work shown in the joint submission of their proposals. The central idea of the Argentine delegation in this connexion would be to achieve an effective method by which the United Nations may be used as an effective and active centre for information for the national registration of vehicles launched into space, which States will be required to transmit without delay. Otherwise, the agreement on the return of astronauts and space vehicles, as also the Treaty on liability, will be extremely difficult to put into effect.

In concluding my references to the work of the Legal Sub-Committee, I wish to congratulate its Chairman, Mr. Wyzner for his expert handling of the work and his constructive and conciliatory spirit, which made it possible to arrive at an advanced text of two substantial drafts in the brief period of two weeks.

Concerning the report of the Scientific and Technical Sub-Committee, the Argentine delegation believes that the programme of applications of space technology should be adequately strengthened as provided for in operative paragraph 8 of General Assembly resolution 2776 (XXVI), adopted at its last session. Our delegation would hope that the programmes called for in 1973 and 1974 can be carried out with success. The Argentine delegation is of the view that training in the area of space technology should be integral and complemented by basic knowledge in the area of international law. In this connexion I am pleased to say that between 7 and 11 August 1972 a seminar was held in Buenos Aires concerning the teaching of international law as it applies to outer space and space communications. At that meeting, resolutions and declarations were adopted concerning the ways and means that might be advisable for expanding programmes of international law for the exploration and use of outer space as well as juridical solutions for regional, continental, intercontinental and global co-operation in the peaceful use of space and space communications, the

(Mr. Cocca, Argentina)

role of international law and technological development, the need for development and the ethical requirements of modern civilization, as also technical training in the areas of the exploration and use of outer space.

The Argentine delegation wishes to join in the statements of gratitude for the brilliant role played by the first United Nations Expert on Space Applications, Professor Ricciardi.

As will be recalled, a meeting has been scheduled in Argentina for a technical group on the remote sensing of the resources of the earth from satellites, in co-operation with the United Nations. It is scheduled for the first half of 1973 or whenever we have available substantial information from the ERTS-1 satellite -- information that would make it possible for that meeting to be practical and to offer the greatest possible benefits.

The Argentine delegation wishes to repeat its gratitude to the Scientific and Technical Sub-Committee for its recommendation of continued United Nations sponsorship of the CELPA base, Mar Chiquita.

(Mr. Cocca, Argentina)

We hope that this decision will be approved by the Committee. We wish to state, also, that information supplementing that found in document A/AC.105/C.1/L.47 will be available in a short time, and in that document the Committee will see data about all of the launchings which have been carried out so far.

As far as the preparation of data is concerned, the Argentine delegation believes that the reception and preparation of data are two different areas and that each country must prepare its own data. Argentina already has some experience here and it is prepared to offer its facilities on a regional basis for the purposes of interpretation. My delegation has no doubt that if the group of experts does meet in Buenos Aires, this initiative can be made more specific. At the same time, it would be possible to consider the case of those countries which are not very far advanced in the area of space technology, so that the Committee could then adopt a policy along these lines, if it deemed it appropriate.

The Argentine delegation shares the views of the Chairman that greater strength should be given to this plenary Committee, and this necessarily implies a larger task in the future and the need for increasing the number of its members.

Concerning remote sensing of the earth by satellites, the Argentine delegation is pleased to congratulate the United States delegation for launching the ERTS-1 satellite on 23 July. We wish to congratulate it on the way in which international co-operation has been brought into this area. This is made obvious in the document which the representative of the United States was kind enough to distribute to all members of the Committee this afternoon. This activity, from which we expect so much and which will benefit all countries, makes it obvious that we must set up a suitable legal framework. We must avoid a legal vacuum. Unfortunately, this has not occurred in any other aspect of space activity so far.

In this connexion, may I point out that Argentina in 1970 submitted a draft convention (A/AC.105/C.2/L.71), to which some delegations have referred in meetings of the last two years, as well as in international seminars on space law which were held in Constanza in 1970 and in Brussels in 1971,

(Mr. Cocca, Argentina)

and in the last three national congresses which were held in Argentina in 1970, 1971 and 1972. So that today there is an abundant source of information and the question has been discussed in depth in academic institutions.

The Argentine delegation would also like to congratulate Mr. Florio for his role as Chairman of the Working Group and for the resolution which the Working Group adopted to meet next January, when I am sure that legal and political questions relating to the remote sensing from satellites will be raised.

Concerning direct broadcasting, may I refer to the draft declaration that was prepared by UNESCO and which was distributed in document A/AC.105/104. As far as the Argentine delegation is concerned, this declaration is an important addition to the work of codification of space law which has been entrusted to this Committee. The declaration refers to the guiding principles for the use of broadcasting by satellite, for the free circulation of information, the dissemination of education and intensification of cultural exchanges. The declaration was also examined carefully in the seminar which was held in Buenos Aires last August, because Argentina is of the opinion that this is a document of great importance.

At the same time, we should like to make some reference to the juridical value of such a declaration. When we are dealing with new material which has a universal scope, such as the draft declaration of UNESCO, it is most beneficial to contribute elements towards a final version, in accordance with the practice of international organizations. This is a very useful road towards international awareness and is a precedent for the future work of codification. Anything which specialized agencies of the United Nations system might achieve in the area of their own competence, should be well received and considered as effective collaboration in the work that has been entrusted to the Legal Sub-Committee.

As is well known, resolutions of international agencies, and among them their declarations, have a privileged place. Some sources prefer to call them "declaratory resolutions". They do not have binding force on States as treaties do. However, they do show a pattern of the desire of member States of these

(Mr. Cocca, Argentina)

organizations to lay down general principles in order to make subsequent work easier, work which necessarily will be binding and have the nature of a convention.

The Institute of Diplomatic Relations in Paris has offered a complete course on the value of this international practice, a course being given by Professor Pépin. The person who possibly has given the best definition in this area is Professor Bin Cheng, who is Dean of the Law School of the University of London and who says that this procedure implies no less than the instantaneous adoption of a principle of customary international law.

The draft convention submitted by the Soviet Union (A/8771) is a valuable element in the regulation of direct broadcasting. It is a draft which, in accordance with the statement of the representative of the Soviet Union that we heard yesterday, includes the principles of the UNESCO declaration. Consequently, the adoption by the Seventeenth General Conference of UNESCO of this declaration will give an important impetus to further examination of the draft convention and will open the door to a more rapid elaboration of its principles in an international instrument.

In conclusion, I should like to refer to the Swedish proposal for a new session of the Working Group on Direct Broadcasting. The Argentine delegation resolutely supports this proposal because it believes that the time has come to renew the activities of that Working Group, which have been so useful in the last three sessions. At the same time, the Argentine delegation supports the date proposed by the Swedish delegation for convening the meeting.

The CHAIRMAN: I thank the representative of Argentina for his kind words addressed to the Chairman and the Vice-Chairman of the Committee. I shall not attempt to sum up what has been said this afternoon. We have heard a great many valuable and thoughtful speeches which, I am sure, will be of great value for the future deliberations of this Committee, and therefore I feel greatly encouraged.

The meeting rose at 5.20 p.m.