



COMMITTEE ON THE PEACEFUL USES OF OUTER SPACE

VERBATIM RECORD OF THE THIRTY-FIRST MEETING

Held at Headquarters, New York,
on Tuesday, 3 November 1964, at 10:30 a.m.

Chairman:

Mr. MATSCH

(Austria)

Report of the Scientific and Technical Committee and reports
of ITU and WMO

Report of the scientific group established at the request of
the Government of India to visit the rocket launching site
at Thumba

REPORT OF THE SCIENTIFIC AND TECHNICAL SUB-COMMITTEE (A/AC.105/20 and Add.1) AND REPORTS OF ITU (A/AC.105/L.11) AND WMO (A/AC.105/T.10/Rev.1). IN ADDITION, THE COMMITTEE WILL CONSIDER DOCUMENTS A/AC.105/L.12, L.13 AND L.14
REPORT OF THE SCIENTIFIC GROUP ESTABLISHED AT THE REQUEST OF THE GOVERNMENT OF INDIA TO VISIT THE ROCKET LAUNCHING SITE AT THUMBA (A/AC.105/17).

Mr. TARABANOV (Bulgaria) (interpretation from French): Seven years only after the launching of the first sputnik into orbit around the earth a large number of countries which, in the past, had not yet considered very seriously probing the unknown reaches of cosmic space, have embarked upon a thorough and fruitful study of that subject which gives promise of contributing substantially to the exploitation and preparation of humanity for work in outer space.

Following close on the heels of the Soviet Union, the United States, making use of its enormous resources and potential, has engaged actively in outer space exploration, in which it has scored successes. When, recently, the United States presented tangible results by photographing the surface of the moon from close to with the aid of Ranger VII, the Soviet Union marked a new stage in the exploration of outer space and preparation for its use for peaceful purposes by the launching and recovery of the space craft Voskhod. The flight and safe return of the Voskhod shows that henceforth we shall see flights by whole crews who will enjoy the conditions of normal life, instead of being like deep-sea divers, and also the landing of the cabin with the passengers instead of the ejection and descent by parachute which has been the system hitherto. This courageous trip, organized by the scientists and carried out by the cosmonauts of the Soviet Union, opens up new perspectives for voyages around the earth and for the exploration of inter-planetary space and the planets.

During this time other countries have made their contribution to the study of outer space. Plans for bilateral and multilateral collaboration have been established between different States, with or without the aid and participation of the two countries which have already achieved space flights. It is truly gratifying to see all this activity in the exploration of space grown and develop at a time when mankind has its eyes turned towards space, the employment of which could have in the future great usefulness for the life of man.

(Mr. Tarabanov, Bulgaria)

While following the efforts of other countries which are taking a very active part in the exploration of outer space and preparations to use it, our country, within the bounds of its limited possibilities and means, is making certain efforts in this field on which I will not dwell at this time. We shall leave that task to our representatives at the session of the Scientific and Technical Sub-Committee next year, where it will be more appropriate to speak of our efforts and of our needs if we are to be able to continue them.

The Committee on the Peaceful Uses of Outer Space, through its two Sub-Committees -- the Scientific and Technical Sub-Committee on the one hand and the Legal Sub-Committee on the other -- has tried to record and classify the data and to draw the necessary conclusions in order to find the most appropriate forms of collaboration between countries with a view to facilitating future explorations of outer space and preparations for its peaceful use.

On the basis of a thorough study, the Scientific and Technical Sub-Committee and the Legal Sub-Committee have drawn up several recommendations. The Bulgarian delegation supports those recommendations, which will contribute to the development of collaboration and co-operation between States in the field of outer space. Of all these recommendations we wish to mention only one, which deals with the effort brought to the study of outer space by a developing country. This refers to the Indian experiment at Thumba. We support the sponsorship by the United Nations of the Equatorial Sounding Rocket Establishment at Thumba in order that it shall be kept permanently active. The delegation of the People's Republic of Bulgaria has not dwelt on the work and the success of the Sub-Committees since all the delegations which have spoken until now have said how much they appreciate and support that work. On the other hand, we wish to draw the attention of the Committee to certain questions which have not been welcomed unanimously.

The initiatives and the successes in the domain of the exchange of information and of scientific and technical collaboration, as well as in the other fields of space activity, are in complete accord with the resolutions adopted by the General Assembly on international co-operation in outer space, on the organization of future projects and initiatives. The general consensus in the

(Mr. Tarabanov, Bulgaria)

statements during these discussions appears to be that collaboration between nations is the principal characteristic of the activity both in outer space and in the Committee on the Peaceful Uses of Outer Space. And this is so much so that, at the beginning of his statement of 30 October 1964, the representative of Australia said:

"Many of the Committees of the United Nations General Assembly are concerned with redressing past wrongs or removing existing inequalities. That is right and natural. The Outer Space Committee has a rather different role in that it is largely concerned with problems of the future. This is one reason why Australia particularly values the existence of the Outer Space Committee. ... " (29th meeting, page 41)

The delegation of the People's Republic of Bulgaria is entirely in agreement with this apt conclusion of the representative of Australia. Nevertheless, it would not be just to pass over in silence the fact that, while the great majority of the initiatives taken by the Committee are the result of co-operation among the peoples, and even contribute to promoting that co-operation and putting it into practice, there are some -- even though they are not many -- of whom it cannot be said that they are the expression of this constructive collaboration between nations. In the report introduced by the United States delegation and entitled "Progress Report on Interior Arrangements for a Global Commercial Communications Satellite System" (A/AC.109/22 and Corr.1) reference is made to the establishment of an organization for the exploitation of outer space with the object of setting up a general system of commercial communications by means of satellites. We are certainly in agreement with the representative of the United States, and the representatives of certain other countries taking part in this initiative, that it is collaboration, but it is a collaboration of a very special nature and one that is singularly restricted and does not respond to the letter and spirit of the resolutions adopted by the General Assembly. Indeed, resolution 1802 (XVII), in its part IV, says the Assembly "Believes that communication by satellite offers great benefits to man" and will facilitate contact among the peoples of the world.

(Mr. Tarabanov, Bulgaria)

Nevertheless, in all the resolutions of the General Assembly it is emphasized with particular insistence that outer space belongs to mankind as a whole, that it is the patrimony of all peoples and of all nations. This has been stressed also in the statements of many delegations which have insisted strongly on the fact that the patrimony of the whole of mankind, of all nations individually and severally, must not be used in such a way as to bring about new discriminations or to enable some to profit at the expense of others.

In his speech of 29 October the representative of the United Arab Republic, expressing the opinion of the great majority of the countries of the world at large, said most aptly:

"This is so for the very reason that outer space belongs to no single State, but rather to all mankind. Moreover, the financial and human resources required to explore space are far beyond the capacity of a single State, a fact which would make it more in the interest of all States to act together for the same objective." (28th meeting, page 3)

The great majority of the Member States of the United Nations are in agreement with the opinion expressed by the representative of the United Arab Republic. If outer space is really a patrimony of all countries, and not only of some of them, and if it is necessary to organize the work of collaboration in that field, then let it be done, at least, in such a way as to ensure that all the nations can take part and not merely some of them. It is even less desirable to allow certain nations and certain individuals to profit at the expense of developing countries and their populations. Outer space, the common patrimony of all nations, must not become an object of commercial exploitation for certain people who, because there is at present still no one in space, seek to install themselves there and to create faits accomplis.

It could well be that certain countries would have difficulty in acting otherwise, above all because of their laws and customs. But, when everything is considered, that is no reason for making outer space a domain which would serve to bring the developed countries and their inhabitants profits which would not be enjoyed by the developing countries and their populations. For it is, above all, the developing countries, with their wide expanses and an almost total lack

(Mr. Tarabanov, Bulgaria)

of communications in certain regions, and their present meagre possibilities, which would have the principal need of the means of communicating by satellite. It seems really inappropriate to venture along the path of the creation of new fields for the exploitation of the populations of under-developed countries, and thus of new inequalities, at a time when the International Trade Conference has decided to investigate types of trade for aiding under-developed countries and to get rid of all these economic inequalities and to improve their standards of living and develop their industries. It would be really strange to see certain United Nations Committees working to do away with inequalities, while other were preparing to set up new inequalities, new fields of exploitation of the populations of developing countries.

Perhaps some would be inclined to retort that, in the statute of that organization for satellite communication, it would be specially provided that it was organized on a non-discriminatory basis, that it could obtain all the necessary facilities and all the necessary machinery, and that its installations would all be at the disposal of other countries which could thus, if they wished, take part in the organization on an equal basis.

However, it is obvious that such an objection on the part of the organizers would be easy to rebut. Already, in the reports published when the Corporation was formed, it was possible to note that it was a very solid international business arrangement. Later, the Press announced that the company's shares rose meteorically immediately after its formation, from \$20 to nearly \$45, which is something really remarkable in stock market history. On the other hand, on 18 September, in an article on the stockholders' meeting of this company, The New York Times, quoting one of the directors, wrote:

"The company's principal income, he said, will come through leasing satellite circuits to telephone and telegraph companies. The biggest use, he predicted, will be for telephone messages, but he also foresaw the use of the satellites to link computers around the world."

Later on in the same article we see that the same director gave an assurance that the company would make a certain profit in the near future.

What is very disturbing, moreover, is the fact that the United States has taken precautions to ensure a commanding position for itself by means of temporary arrangements, and to ensure the perpetuation of that position in the future. Indeed, it owns 61 per cent of the shares of the company in question. With Great Britain's 8.5 per cent, they can take very important decisions.

(Mr. Tarabanov, Bulgaria)

Such a situation becomes really alarming when one notes that, in the provisional agreement, measures are taken so that whatever changes might occur in the future in the membership of the Organization, the United States is sure of having more than a fifty per cent of the shares and would, therefore, control the Organization as a whole. This is assured by a particularly ingenious clause, I would say, on which we have no intention of dwelling at the present stage.

And yet, there should be no doubt whatever that when an organization is established in the field of outer space for the welfare of mankind, there should be no question of profit as such. Such collaboration should be organized with the participation of all States, States which have possibilities and technical knowledge equal to the task, as well as those which have neither the knowledge nor the necessary means for utilizing outer space in order to fulfil their need for rapid and cheap communications by means of vehicles placed in outer space.

Certain delegations have stated, including that of the United States, that we must not be alarmed by this, since the agreements adopted by that organization would be only provisional. If we are to understand from this that they intend to comply in the future with the common principles and rules that are to be elaborated for organizations of that nature, leaving aside the initial surge towards profits, and that they will be prepared to participate in a future organization which will not be based on the principle of profits, we could but display deep satisfaction. It would be indeed most important that, in the future, we should endeavour to orient ourselves towards the utilization of outer space for telecommunications without concerning ourselves with drawing profits for the benefit of some, but rather on a basis of equality among all nations, from which profit and exploitation would be excluded.

Another particularly useful kind of action in the field of international co-operation in the use of outer space, one which has not been approved unanimously in our Committee, has been the proposal to hold a conference in 1967, under the auspices of the United Nations, for the exploration and utilization of the peaceful uses of outer space. The need for holding such a conference has been stressed by many delegations; some representatives have opposed it, however, for reasons of economy. They have adduced other reasons as well.

(Mr. Tarahancov, Bulgaria)

We believe that the convening of such a conference would be useful and even necessary. We are certain that those who oppose it do so not because the year of the conference will coincide with a certain anniversary. The argument has been advanced, however, that several international organizations have already fixed dates for conferences during that period and that such conferences will be concerned with outer space; and in those conditions the work of research and exchange of information will be undertaken at that time.

Taking all these facts into account, the representative of Italy proposed the appointment of a working group to study the possibility of co-ordinating the preparation of such a conference to which all these organizations could contribute effectively, instead of convening separate conferences and incurring additional expenditures. This idea seems to us an excellent one and we support it.

The need for a world conference on the exploration and peaceful uses of outer space is very great. The various conferences of international organizations dealing with outer space are attended by the developed countries with specific interests and with the necessary personnel to send as delegations. On the contrary, the developing countries and the small countries from different parts of the world often have no means of sending delegations to international conferences, such as those organized by the various organizations which we have mentioned, either because they have little to report or because they do not have the required personnel to send. However, at a world conference on outer space, those countries would have the opportunity of sending delegations and would be interested in doing so because common experiences would be brought together at a single place and shared. The presence of different delegations would make it possible for them to acquire the necessary information to satisfy the needs of their own countries, and this, more easily. They would also have the possibility of comparing and appreciating the experience of different nations. They would thus be able to send special delegations in order to study more deeply what is necessary for them to know.

Thus it is not only for the countries which have something to gain from such a conference and which also are in the position of being able to send delegations to conferences of different international organizations concerned with outer space, that a world conference should be organized on the exploration and peaceful uses of outer space. There is rather the need to make it possible for the small countries who cannot send delegations to the various conferences to benefit from such a conference.

In these circumstances we believe that such a conference should be held in 1967 and that it would be of great benefit for the developing countries and for humanity as a whole. It would also be of great importance for the small States which do not have the possibility of individually developing the exploration and peaceful uses of outer space and, as a result, be of equal importance in increasing their knowledge in the field of outer space.

These are the comments which the Bulgarian delegation wished to make in the general debate in the plenary session of the Special Committee. It is understood, of course, that we reserve our right to intervene in the course of the discussion if that should become necessary.

Mr. de CARVALHO SILOS (Brazil): Since we last met, the exploration and use of outer space has progressed at an accelerated pace. This pace is no longer a matter of conjecture, as we are already familiar with the fact that space science has advanced even beyond science fiction. The imagination of novelists has not been able to keep pace, much less surpass, the achievements of space scientists. Even we, in this very room, often have the feeling that we are dealing with a magical reality, with the very "stuff dreams are made of". The old images of poets and the ponderings of philosophers become obsolete as a television camera -- as we saw the other day -- draws close to the moon, relaying to us down here possibly the most thrilling pictures man has ever made. The "eternal silence of infinite space" now twinkles with the magic not of "celestial spheres", but of man-made spheres.

I indulge in these whimsical considerations just to stress the importance of our work and to point out the necessity of completing the task entrusted to us before the rapid advance of space science paralyzes our efforts or, at least, renders our labour much more difficult.

I now turn to the report of the Sub-Committee on Legal Questions. This report shows that only little progress has been achieved on the draft convention on assistance to and return of personnel and spacecraft. Through patient and skillful work, however, the gap between the different opinions seems to have narrowed on a few points. During the debates in the working group which dealt with such a convention, my delegation raised a few points to which the Brazilian Government attaches great importance. Let me be allowed to recall that Brazil has been supporting the principle that the provisions of article 6 of the Australian-Canadian draft regarding the return of objects launched into outer space should apply only to those objects launched for peaceful purposes. Such a provision would be in keeping with the Declaration on legal principles governing the activities of States in Outer Space.

As for article 3 of the Soviet draft, and of the Australian-Canadian proposal, and article 2 of the United States text -- all dealing with assistance to astronauts in the territory of a contracting party -- my delegation supported the views of the members of this Committee who would like to see clearly stated that it is up to the State where the emergency landing is made to determine whether it should or should not request assistance from the launching State to carry out the rescue operation.

My delegation fully understands the humanitarian character of the convention on assistance to and return of astronauts and is of the opinion that the Legal Sub-Committee should expedite the examination of the draft proposals of which it is seized in order to achieve agreement on a final text. It is our duty, however, to point out that it would be not only fair, but that it is imperative to complete soon -- and very soon - the draft convention on liability.

I have only one other remark to make on the report of the Legal Sub-Committee. The Declaration on Legal Principles adopted by United Nations resolution constitutes, in our view, a focal point in the development of space law. In voting in favour of the Declaration, the Brazilian delegation stressed, however, that it was acceptable as a dynamic set of principles, as a document that should be revised and completed by future decisions. If the exploration of outer space is meant to be a joint endeavour of mankind, if we are determined to preserve the youngest province of mankind from the heritage of quarrels and rivalries which divide us on earth, we should, from the very start, set forth the rules which would map out the legal framework of outer space exploration and uses.

In the opinion of my delegation, the only road to that goal is the convention on principles. Thus, once again, my delegation regrets the fact that the Legal Sub-Committee was not in a position to embark upon the drafting of that convention.

It is only my duty to express the satisfaction of my delegation with the report of the Scientific and Technical Sub-Committee. We give our support to all the recommendations contained in Document A/AC.105/20. We would like, however, to emphasize our support of some of those recommendations. We think, for instance, that the Sub-Committee was very wise in calling the attention of Member States to the role which is already being played by bilateral and multilateral co-operation in space projects.

In this connexion, I would like to convey to the delegation of Argentina the appreciation of my delegation for the statement made last week concerning the creation in Argentina of a regional center for research and training in satellite communications systems. I am certain that my Government will be only too happy to be able to participate in that joint effort, for its services will benefit not only the neighbouring countries, but the world community.

(Mr. de Carvalho Silos, Brazil)

I am very glad to endorse the recommendation contained in paragraph 35 of the Sub-Committee's report. It was about time that our Committee dealt with the question of the probable harmful effects of outer space activities on the earth's natural environment, a problem which has been causing concern to many scientists.

My delegation also fully agrees with the opinion of the Sub-Committee as regards international co-operation in the field of education and training. In this connexion, I would like to express our gratification at the statement contained in paragraph 26 of the Sub-Committee's report.

At its second meeting, the Scientific and Technical Sub-Committee recommended that the Committee on the Peaceful Uses of Outer Space invite COSPAR to review the geographic distribution of sounding rocket launching facilities and their capabilities, and advise the Sub-Committee on desirable locations and topics of research. The recommendation was inspired by the need to avoid duplication of effort. At its third session, the Sub-Committee decided to renew the above-mentioned recommendation. My delegation is in a position to support the Sub-Committee's recommendation, as we are convinced that by so doing COSPAR will be guided by General Assembly resolution 1802 (XVII) wherein the General Assembly approved the granting of United Nations sponsorship to sounding rocket launching facilities on the geomagnetic equator.

The Brazilian delegation welcomes the recommendation of the scientific group which visited the rocket launching site at Thumba that the Sub-Committee approve the granting of United Nations sponsorship to India for the continuing operation of the Thumba sounding rocket launching facility. On behalf of my delegation, I would like to convey to the delegation of India very warm congratulations on the remarkable job done at Thumba.

The continuing operation of the Thuma facility and the setting-up of new sounding rocket launching facilities on the magnetic equator under the sponsorship of the United Nations, in accordance with resolution 1802 (XVII), is of the utmost importance, not only to developing countries -- which will thus be able to participate fully in the exploration of outer space -- but to the entire world community, in view of the special data those facilities will make available to all Member States.

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(Mr. de Carvalho Silos, Brazil)

The Brazilian Government views the question with special interest and, on its behalf, I should like to read to you the text of a memorandum whose circulation has already been requested by the Permanent Representative of Brazil to the United Nations:

"In connexion with General Assembly resolution 1802 (XVII) concerning the creation and use of sounding rocket launching facilities on the geomagnetic equator under United Nations sponsorship, the Brazilian Government wishes to inform the Committee on the Peaceful Uses of Outer Space that it is establishing sounding rocket launching facilities near Natal, in the north-east of Brazil. As the geomagnetic equator passes through that area of Brazilian territory, the findings of the sounding rocket launching facilities set up at Natal could be of the utmost interest to all Member States engaged in space research. The Brazilian Government, therefore, wishes to indicate its intention -- as soon as all the necessary arrangements have been completed -- to request United Nations sponsorship for those facilities, in accordance with General Assembly resolution 1802 (XVII). The Brazilian Government is convinced that in so doing, it will contribute to furthering international co-operation in the peaceful exploration of outer space."

(A/AC.105/23)

Before concluding, let me be allowed to comment on the recommendation made by the conference of non-aligned nations held in Cairo concerning the convening of an international conference on outer space. The Brazilian delegation welcomes the idea and will support it. We have some doubts, however, as to the date of the conference, and I think that more thought and study should be given to this aspect of the question. I agree with the suggestion submitted by the representative of Italy on the setting-up of a working group to examine the problem and report back to our Committee. In our view, it would be most appropriate to commemorate the opening of the space age by adopting a convention on the principles governing the exploration and use of outer space.

Mr. de ROMBEE de VICHEMET (Belgium) (interpretation from French): For several years man has been physically exploring an entirely new domain: the infinite reaches of the heavens. The pursuit of space activities has been limited to peaceful utilizations for the benefit of mankind. It is characterized by international collaboration -- co-operation among peoples.

The United Nations has greatly contributed to making space the domain of scientific research in the interests of mankind. We note that it has given rise to healthy competition between two great Powers. The whole world admires their spectacular achievements. The recent exploits of Ranger VII and Voskhod are so many steps along the road to the peaceful conquest of space and have aroused general and greatly deserved enthusiasm.

On the occasion of its sixth session, the Committee on the Peaceful Uses of Outer Space has before it an impressive series of important documents testifying to the remarkable activities of its two sub-committees, the Scientific and Technical Sub-Committee and the Legal Sub-Committee. The various recommendations formulated by the Scientific and Technical Sub-Committee are worthy of the attention of the plenary Committee.

My delegation supports the suggestion made by the representative of Austria who asked that note be taken of the report of the World Meteorological Organization, submitted after the conclusion of the work of the Scientific Sub-Committee, and that the activities of that organization with regard to future development of the world weather watch and its programme of action by stages be approved. My delegation is happy to congratulate the Government of India on the success it has achieved in the installation of its sounding rocket launching site at Thumba and to associate itself with the other delegations which in this field have supported the recommendation of the Scientific and Technical Sub-Committee.

My delegation has listened with close attention to the interventions which in the course of this general debate were devoted to one of the recommendations of the Scientific and Technical Sub-Committee, namely, those providing for consideration of the setting up in 1967, under the auspices of the United Nations, of an international conference on outer space (paragraph G of document A/AC.105/20). The exchange of views which we have heard, particularly concerning the risks of duplication and the resulting expenditures of such a conference, leads the

(Mr. de Romree de Vichenet, Belgium)

Belgian delegation to believe that the question is not yet sufficiently ripe and that it requires more detailed discussion. In this regard my delegation would recall the views expressed by the representatives of Australia and Japan and those expressed by the representatives of the United Kingdom, India and France. My delegation is prepared to make its contribution to any new examination which may be undertaken later on this question. My delegation appreciates at their true value the objectives envisaged for the possible conference in 1967 but considers that it is advisable to have a clear idea of the best way to achieve them.

As the Committee knows, my delegation, desirous of participating in outer space ventures, and convinced that its contribution can bear fruit only on the basis of international co-operation, is one of the seventeen signatories of an agreement establishing a world commercial system of satellite telecommunications.

The report of activities contained in document A/AC.105/22 furnishes the required information on the subject. My delegation has stressed in its turn that the system instituted under the agreement of 24 July 1964 is provisional. Experience will show what improvements are necessary. It is an intergovernmental agreement, and the institutions called upon to put into operation the satellite communication system stem from the Governments parties to the agreement, under whose constant control they function.

Lastly, my delegation wishes to point out that the system established is open to use by all States, on a non-discriminatory basis.

The Belgian Government, on the other hand, being a party to the ELDO and ESRO agreements, participates actively in the enterprises of these two regional organizations. Within the framework of European co-operation thus established, Belgium has been given the responsibility of the guiding system. In this connexion, Belgium is to supply the control station to be installed in the north of Australia, to which the representative of Australia referred last Friday, for guidance of the final stages of the flights of rockets launched from the Woomera base. Document A/AC.105/L.12, chapter two, gives a substantial review of the ELDO/ESRO activities, which do doubt have commanded the attention of the Committee.

(Mr. de Romree de Vichenet, Belgium)

My delegation wishes to conclude this brief intervention with some considerations on the work of our Legal Sub-Committee. The efforts made by the latter deserve recognition from the plenary Committee. The Sub-Committee has achieved progress in the formulation of the general lines for future conventions on assistance and return and on liability in case of damage. Bearing in mind, however, the complexity and novelty of the problems discussed, the Sub-Committee was not in a position to submit to us, as we had hoped, definitive texts based on general agreement. The Belgian delegation participated actively in the debates of the Sub-Committee. My delegation was the author of one of the texts submitted to it, the text on liability in the event of damage, through the introduction of a working paper, the preparation of a draft agreement and, lastly, the preparation of a revised draft which attempted to take into account the various criticisms expressed during the discussion. My delegation believes that, when the Sub-Committee resumes consideration of the different drafts before it in the light of the merits of each, its tasks will be facilitated by the valuable work of the Secretariat. The latter was able, on the basis of the complex debates, to come forward with a synoptic table setting out clearly the analogies and the divergencies that were found between the two texts in question.

Finally, it is the hope of my delegation, as of others, that the Legal Sub-Committee at its next session will achieve a broad measure of agreement on the two important subjects submitted to it for its careful consideration and also that the agreement thus attained will pave the way for an even broader understanding in the spirit of the declaration of juridical principles in resolution 1962 (XVIII) for the greater benefit of the common peaceful utilization of outer space.

Mr. HAKIM (Lebanon): Remarkable progress is continuing to be made in the peaceful exploration and use of outer space. Such progress is largely based on national effort, but international co-operation is beginning to play a significant role in this bright new field of man's endeavour. Science and technology are universal and no boundaries should limit their forward advance. In this field our aim should be to develop an international co-operative effort for the benefit of all mankind rather than wasteful competitive national enterprises.

My delegation wishes to express its congratulations for the brilliant exploit achieved recently by the USSR and the United States of America. The launching last month by the Soviet Union of the spaceship Voskhod with three astronauts aboard was met with world-wide admiration. Similarly, the successful launching by the United States of Ranger VII, which sent back to earth photographs of the moon's surface, was an admirable scientific achievement.

My delegation notes with satisfaction the reports of the Scientific and Technical Sub-Committee on the work of its third session. The recommendations contained in this report deserve our full support and constitute convincing evidence of the progress being made in the field of international co-operation in outer space science and technology. We wish in particular to congratulate the delegation of India on the progress of the Thumba project of an Equatorial Sounding Rocket Launching Facility. My delegation fully supports the recommendation that United Nations sponsorship be granted to India for the continued operation of this project.

I wish to emphasize the role of the United Nations in the field of space science and technology. The United Nations should not only act as a centre for the exchange of information, but also as the central agency for the promotion of international co-operation in outer space among the largest possible number of countries. Other organizations and agencies have their specialized and limited functions, but the United Nations should serve as the main agency for the co-ordination of international co-operation on a global basis. In this regard, my delegations wishes to express the view that even for the exchange of information the United Nations is performing a limited function. In fact, the information

(Mr. Hakim, Lebanon)

communicated to the Secretary-General for the registration of launchings into outer space under General Assembly resolution 1721 (XVI), is inadequate and furnishes less data to the United Nations than is being given to other organizations.

The representative of Austria referred to the interesting possibility of developing new communication techniques by means of artificial earth satellites which can make a valuable contribution to world-wide civil navigation and traffic control. I would like to support his suggestion that the International Civil Aviation Organization should be invited to study this question of establishing a world navigation satellite system and submit a report on it to our Committee.

My delegation is satisfied with the progress made by the Legal Sub-Committee during its meetings in Geneva in March and in New York last month. The two reports submitted to us show substantial advance in clarifying the issues and reaching agreement on the main principles involved in the two agreements on assistance to and return of astronauts and on liability for damage caused by objects launched into outer space.

With regard to the work of the Legal Sub-Committee, I would like to make the following observations.

Firstly, the two agreements on liability and on assistance and return are closely linked. If accidents occur, it may be necessary not only to rescue astronauts and facilitate their return and the return of spaceships and space objects to the launching State, but also it may likewise be necessary to pay compensation for damage to the victims of such accidents. My delegation, therefore, hopes that both agreements would be completed as soon as possible so that their ratification by Governments may be considered at the same time and that the largest possible number of States may become parties to them. It is quite likely that many Governments will not ratify the agreement on assistance and return without having the opportunity also of ratifying at the same time the agreement on liability.

Secondly, the Legal Sub-Committee should, in our opinion, proceed to the consideration of other possible agreements based on the Declaration of Legal Principles Governing the Activities of States in the Exploration and Use of Outer Space adopted unanimously by the General Assembly at its last session. The

(Mr. Hakim, Lebanon)

two agreements now before the Sub-Committee relate to only two of the principles of the Declaration. The other principles should be examined so as to determine in what way they may be incorporated and elaborated in legal instruments having binding force on States.

Thirdly, the Legal Sub-Committee should re-examine the Declaration of Legal Principles with a view to expanding its scope and improving it by the addition of other important principles. My delegation has always pressed for the adoption of a legal principle limiting the exploration and use of outer space for peaceful purposes only and prohibiting non-peaceful activities in outer space.

In this connexion, I would like to refer to the recent Cairo Declaration which contains a statement on this subject in which the Conference of Non-Aligned Countries "welcomes the agreement of the great Powers not to orbit in outer space nuclear or other weapons of mass destruction and expresses its conviction that it is necessary to conclude an international treaty prohibiting the utilization of outer space for military purposes. The Conference urges full international co-operation in the peaceful uses of outer space." My Government, which participated in the Cairo Conference, fully endorses this statement, and hopes that the Legal Sub-Committee will give it due consideration.

Our Committee on the Peaceful Uses of Outer Space is still in the early stages of its work and has important tasks ahead of it. Outer space activity is still young and international co-operation in the peaceful exploration and use of outer space has not yet advanced far. My delegation wishes to emphasize again the role of the United Nations in this field. Co-operation under the aegis of the United Nations is the only way to ensure the widest possible participation in this vast human enterprise and the most fruitful and universal sharing in its benefits. For this reason, my delegation endorses the statement contained in the Declaration of the Cairo Conference of Non-Aligned Countries, which reads:

"The Conference requests those States which have succeeded in exploring outer space to exchange and disseminate information related to the research they have carried out in this field, so that scientific progress for the peaceful utilization of outer space be of common benefit to all. The Conference is of the view that for this purpose an international conference should be convened at an appropriate time."

(Mr. Hakim, Lebanon)

I would like to explain the reasons for my Government's support for the proposed conference. In our view this should be a United Nations conference bringing together all Member States of the United Nations family. With due respect to the conferences and meetings held by a limited number of advanced countries, which constitute a sort of rich man's club for outer space, my delegation believes that a majority of the Member States of the United Nations, the small developing nations, do not yet feel a sense of participation in this great human enterprise of the conquest of outer space. To them outer space activity still seems unreal and belongs more to the realm of science fiction. It is for the United Nations to give them more knowledge of the benefits of outer space and more opportunity to participate in a great international co-operative effort for the peaceful exploration and use of outer space.

I agree with the representative of Italy that this proposal needs further study and the establishment of a small working group would be useful in that regard. The purposes and the agenda of the proposed Conference should be carefully examined and the most appropriate time for holding it should be fixed. My delegation believes that the main purpose of the Conference should be to stimulate the interest of small and developing countries in outer space and to encourage their co-operation and their participation in the exploration and use of outer space in a global basis.

Miss AGUIRRE (Mexico) (interpretation from Spanish): The delegation of Mexico has listened with great satisfaction to the accounts of achievements in space activities by several countries. It is obvious that the launching of Ranger VII by the United States and of the space ship Voskhod, with three astronauts, by the Soviet Union has aroused the admiration of the entire world, which has greeted with satisfaction the success of both undertakings.

My delegation is also gratified to note that, with few exceptions, international co-operation has played an important role in space activities. That serves as an impetus for other countries without vast resources to participate in specific space activities and thereby to contribute to the development of science both at the national and at the international level.

We must also take note of the large number of international organizations that are devoting their common efforts to studying the various aspects of the exploration of outer space for peaceful purposes; I have in mind here COSPAR and similar bodies. The report of the Scientific and Technical Sub-Committee also contains an account of the activities of various specialized agencies, such as UNESCO, ITU, WMO, and so forth, in the promotion of international programmes. Thus, we note that the International Telecommunications Union, in compliance with resolution 1963 (XVIII) convened an Extraordinary Administrative Radio Conference in 1963, at which radio frequency bands were allocated for space radio communication in connexion with space objects that must report emergencies.

The delegation of Mexico has taken note with satisfaction of the recommendation made by the Scientific and Technical Sub-Committee, especially those related to the dissemination of information on the scientific and technical aspects of space exploration and their purposes and possibilities; national and international space programmes; conferences and symposia in which scientists of Member States may participate, and so forth. We are also pleased with the recommendation that countries with limited resources should be given assistance in carrying out space activities so that they may acquire the necessary knowledge and technology to participate in research regarding outer space and in the application of that knowledge; I have in mind, for instance, the developing countries.

(Miss Aguirre, Mexico)

The Secretary-General is thus requested to ask Member States to inform him of their needs in the field of education and training for such purposes. He will also organize an exchange of information on space techniques, so that the States in a position to set up courses or to give scholarships for study and research may be able to make known their possibilities. My delegation is happy to note that these exchanges of information will take place on a continuing basis.

The delegation of Mexico welcomes the recommendation of the Scientific and Technical Sub-Committee on the potentially harmful effects of space experiments. We wish specially to stress paragraph 3 of that recommendation, which urges all Member States proposing to carry out experiments in space to consider the problem of possible interference with other peaceful uses of outer space, as well as of possible harmful changes in the natural environment that may be caused by such experiments. The recommendation provides that, where Member States consider it appropriate, they may obtain a scientific analysis of the qualitative and quantitative aspects of the experiments in question from the Consultative Group on Potentially Harmful Effects of Space Experiments.

The delegation of Mexico has read with interest document A/AC.105/17, which contains the report of the Scientific group that visited the Thumba sounding rocket launching facility. We wish to congratulate the Government of India on its success in this space activity. In that connexion we support the recommendation of the Scientific and Technical Sub-Committee. We also congratulate Argentina on its efforts in space activities, and Brazil on the programme which it intends to carry out and to which the representative of that country has just referred.

The Scientific and Technical Sub-Committee recommends that:

"the Committee, in view of resolution 1472 (XIV) of the General Assembly, consider, after consultation with competent international organizations, the usefulness of organizing in 1967 under United Nations auspices an international conference on the exploration and peaceful uses of outer space." (A/AC.105/20, para. 16 G)

(Miss Aguirre, Mexico)

My delegation has listened with interest to the representatives here who have spoken on that recommendation. We have noted that no objection has been raised to the idea of the conference itself. The only objections relate to the timeliness of the conference for reasons of duplication and expense. My delegation which, like many others here, represents a country not yet participating directly in space activities, welcomes the recommendation in paragraph 1 of resolution 1472 B (XIV). We do not think that it would be unadvisable to hold the conference in question in 1967. We wish to emphasize the scientific nature of the conference, as is stressed in the original resolution. We therefore regard as valuable the suggestion by the representative of Italy that a small working group should be established to study, with a view to avoiding duplication and expense, all problems in connexion with the conference and to report to this Committee at its next session. In that way the Committee would have all the necessary elements to make a decision on the advisability and usefulness of holding the conference in question.

The report of the Legal Sub-Committee does not indicate any spectacular achievements. However, the discussions of that Sub-Committee were useful and promising. In view of the importance of the conventions that are being drawn up on assistance to astronauts and space ships and their return, as well as on liability in the event of damage caused by the launching of space objects, the draft conventions in question have been carefully studied. The delegation of Mexico expresses the hope that at the next session of the Sub-Committee agreement will be reached, at least on the convention regarding assistance to astronauts, in view of the special humanitarian nature of that subject. For the same reasons, the Mexican delegation hopes that, as in the case of the Moscow Treaty, a formula will be devised providing for accession by all countries.

(Miss Aguirre, Mexico)

All the peoples of the world are equally exposed to damages from an accident caused by space activities. Furthermore, we must all be linked by the common desire of rendering assistance to astronauts who, as the declaration of principles approved by the General Assembly states, are the envoys of mankind and not of a few or a majority of the countries of the world.

To conclude, I should like to associate myself with those speakers who have paid tribute to Professor Eachs who, with his usual skill and patience, guided the debates of the Juridical Sub-Committee at a very high level.

Mr. JOHNSON (World Meteorological Organization): Due to his being unable to be present in New York today, the Secretary-General of the World Meteorological Organization, Mr. Davies, has requested that I report to the Committee again on his behalf.

Members of the Committee will recall that in response to General Assembly resolutions 1721 (XVI) and 1802 (XVII), the WMO presented to you the first and second reports on the Advancement of atmospheric sciences and their application in the light of developments in outer space. It is my pleasure now to discuss with you the third report on the same subject which has been prepared as an annual document, and in accordance with the request contained in General Assembly resolution 1963 (XVIII).

We hope that you will find our third report useful and informative. We believe that it demonstrates that WMO is now passing from the initial stage of broad concepts of the peaceful use of outer space to the stage of practical, realistic plans and their implementation. You have already been informed that the WMO Congress authorized the establishment of an Advisory Committee to the Executive Committee composed of outstanding scientists. This Committee has now been appointed and has held its first session. It has concentrated on research problems and has identified, on a priority basis, those research problems which need special and urgent attention. The Advisory Committee has also, whenever possible, suggested the means of probing the particular identified research problems. The Committee has reported to the Executive Committee which has passed favourably upon this report. The Advisory Committee will meet again early in 1965.

to review progress and to provide further direction to the conduct of research and operations, particularly with respect to developments in outer space.

The WMO in its first report put forward in general terms the concept of the World Weather Watch. This concept has received general acclaim among the world's meteorologists and is now being transformed into a firm and realistic plan. The third report proceeds with the definition of the planning principles which will lead to implementation. It becomes increasingly clear that successful implementation of the World Weather Watch will require the full and active co-operation of all Member States, some to a greater extent than others. In performing the planning, it is expected that even direct and specific assistance of some Members may be necessary. Perhaps this Committee might wish to urge all Member States to take a full and active interest in the activities of WMO in development of the World Weather Watch and to give all possible assistance to WMO in the development and implementation of its plans. As a focal point for this planning effort, the WMO has now established a special planning unit in the Secretariat. This has been staffed with highly qualified specialists who are proceeding with development of the over-all plan within precise guide-lines and dead-lines established by the Executive Committee.

The WMO third report points out again the special need for effort in the fields of education and training. The WMO has reorganized at its headquarters to provide for increased activity in these fields. Much of the training activity of WMO takes the form of seminars and symposia. The next important event in the field of outer space will be a seminar in Tokyo, conducted under the auspices of the WMO Technical Assistance Programme and of the Government of Japan, in November-December 1964. This seminar will emphasize the practical use in weather forecasting of data acquired by meteorological satellites. This particular seminar is being offered for the benefit of participants from the WMO regional associations for Asia and the south-west Pacific and will be led by experts from the United States of America, the Soviet Union and Australia. Participation is expected to be wide-spread, with representation from many of the countries in the regions mentioned.

(Mr. Johnson, WMO)

Since we last reported to the Committee on the Peaceful Uses of Outer Space there have been two additional successful launches of meteorological satellites by the United States. These are the eighth successful Tiros satellite and the first satellite of the Nimbus series. Both of these satellites have returned very useful data. Tiros VIII, as well as Tiros VII which was launched in June of 1963, continues to perform satisfactorily. Both Tiros VIII and Nimbus A carried a new camera system which was reported to the Committee last year as an imminent development. This is the Automatic Picture Transmission System, which will enable all countries to receive direct pictures from the satellite of local weather conditions through use of relatively simple and inexpensive ground equipment. The feasibility of this experiment has been amply demonstrated and the data received have been put to immediate operational use in those countries equipped with the necessary ground installations.

The United States and the Soviet Union have continued their series of bilateral discussions on the peaceful uses of outer space. These discussions have embraced a number of fields of interest, including meteorology. It can now be envisaged that in due course there will be a co-ordinated effort by these two countries, including special facilities for the routine exchange of data. The Committee may wish to be kept informed of the results of these bilateral discussions and of any manner by which other countries might become active in the programme.

The WMO hopes that its action to draw attention in the third report to the progress which it has made in identifying major specific research problems and in listing specific projects to which special attention should be given might be helpful to the International Council of Scientific Unions. This same information may be of use to Member States in focusing attention on the development of national research programmes in the fields highlighted by the report.

It is our belief that one of the greatest benefits to be developed from programmes in the peaceful uses of outer space is in the field of meteorological satellites. To date, the meteorological satellites which have been launched have been largely experimental. Nevertheless, they have now for four and a half years provided an almost continuous source of information on cloud features and other

Mr. SALSAMENDI (United Nations Educational, Scientific and Cultural Organization): We have asked for the floor only to avoid the possibility that silence on the part of the representative of UNESCO might be misinterpreted. In fact, there is little to be added to the information on UNESCO activities relating to the peaceful uses of outer space contained in document A/AC.105/L.12, which is before the Committee. I shall therefore be very brief and refer only to some of those activities.

As will be seen from that document, UNESCO has continued its assistance to scientific meetings and symposia in co-operation with various non-governmental scientific organizations, and has maintained its support of such international research programmes as the International Year of the Quiet Sun and the World Magnetic Survey. UNESCO has also continued to assist with the preparation of technical documentation and studies, and in the training of astronomers and geophysicists.

The first meeting of a Working Group on Meteorites, set up by UNESCO, was held in February of this year. The terms of reference of this small group of experts are to promote the observations of meteorite falls, the recovery and conservation of meteorites, the exchange of information concerning them, and to consider how the best use can be made of meteorites for scientific research. The Working Group made recommendations for action by UNESCO and its Member States concerning, in particular, the observation of new falls, the cataloguing and conservation of existing meteorites, and international consultation regarding the use of meteoritic material for research. The Group also requested UNESCO's Bureau of Legal Affairs to make a comparative study of the law relating to meteorites in different countries, with a view to facilitating the implementation of scientific recommendations.

Although the resources in UNESCO's budget for activities relating to outer space during 1965/66 will probably be somewhat smaller than in 1963/64, it is anticipated that the most important activities in astronomy and geophysics will continue. It is proposed to establish a contract with the International Astronautical Federation for the holding, in 1965, of an International Symposium on the Environmental Problems of Manned Space Flight. There is also before the current session of the General Conference of UNESCO a proposal to convene a meeting of experts to study the problems involved in the use of space communication by the

(Mr. Johnson, WMO)

data which can be made available to other countries of the world. Consequently, while plans for the World Weather Watch are still in the developmental stage, the routine provision of practical information obtained by satellites continues.

The WMO will be happy to continue to provide annual reports if desired by the Committee. We would also welcome any interest of the Committee and of the United Nations Secretariat in keeping informed and in close contact with WMO projects in the area of peaceful uses of outer space, in particular in the fields of education and training.

Mr. Chairman, the above summarizes briefly the activities of WMO in the year since I last reported, and highlights the WMO third report. I should be happy to discuss any inquiries of delegations concerning our past activities and future plans in this exciting programme.

(Mr. Salsamendi, UNESCO)

mass media in order to promote the free flow of information, the rapid spread of education and wider cultural exchange. The preparation of such an expert meeting or any related activities would, of course, be undertaken in close co-operation with other international organizations concerned, in particular with the ITU.

As I mentioned earlier, this statement has referred only to some of the UNESCO activities in this field. I should like to close by reaffirming my Organization's willingness to co-operate to the fullest extent possible, within the limits of its resources, in the work of the Committee on the Peaceful Uses of Outer Space.

Mr. ELLIS (International Atomic Energy Agency): The International Atomic Energy Agency, as an organization concerned with the peaceful uses of atomic energy, is naturally interested in applications of nuclear power in outer space. This interest is, at the moment, confined to only a few fields, but with further developments in both nuclear energy and outer space research, it will certainly increase and embrace a greater number of subjects.

Atomic energy in outer space can be used for propulsion, as in a nuclear rocket, and for other energy requirements in space missions -- including power supply to electric propulsion engines. Special requirements for nuclear reactors used in space, such as high specific power, high burn-up, and desirability of higher operating temperatures, together with special schemes for converting heat into electricity, make them different from other types of power reactors. Because of that the Agency is greatly interested in all technological details such as reactor design, construction materials, choice of fuels, reactor control, methods of electricity generation, etc.

However, the scope of the Agency's work in this particular field is limited and will, for some time, be confined to exchanges of information.

Possibilities of future prolonged manned flights to a large degree depend on successful tackling of the problem of shielding from different types of radiation in space such as cosmic rays, solar flares, radiation belts, as well as from the nuclear power source, if one is used. The development of shielding materials for space missions may have practical importance in other applications of atomic energy.

(Mr. Ellis, IAEA)

The use of a nuclear power source in space missions introduces a problem which has international aspects, that of environmental contamination. Contamination could be caused by a malfunction of a reactor engine or as a result of an accidental re-entry and destruction in the air, on the earth, or in water. Similar problems arise when contamination is caused by the destruction or dissolution of an electrical generator powered by heat-producing radioactive material. Study of such problems could be initiated by the Agency.

In determining criteria for radiation safety, biological effects of radiation are of primary importance. IAEA has done extensive work in connexion with developing safety standards and regulations for work with radioactive sources and reactors. Some of these regulations have been recommended as the basis for national legislation.

The Agency is interested in the effects of cosmic radiation, the earth's radiation belts and solar flares on different biological systems ranging from uni-cellular organisms through multi-cellular organisms up to man, since these effects cannot be reproduced in a laboratory and can influence shielding design for space missions.

The Agency co-operated with the International Astronautical Federation in organizing a symposium on Basic Environmental Problems of Man in Space, held at UNESCO Headquarters from 20 October to 2 November 1962, by providing administrative support and presenting a paper on the present knowledge of radiation hazards to man applicable to problems of space travel.

The Agency submitted a scientific paper to the International Congress on Man and Technology in the Space and Nuclear Age, convened by the Associazione Internazionale Uomo nello Spazio, in Milan, from 17 to 21 April 1963.

The Agency co-operated with the United Nations in organizing the Third International Conference on the Peaceful Uses of Atomic Energy, held in Geneva from 31 August to 10 September 1964, being responsible for the scientific content of this conference. One session was partly devoted to nuclear power sources for space missions.

The Agency will help the International Astronautical Federation in organizing its second symposium on Man in Space during the second half of June 1965, in Paris, by presenting a scientific paper on Radiation Hazards in Space Flight.

(Mr. Ellis, IAEA)

The legal problems of liability that may arise in connexion with the use of space vehicles may have certain features in common with those connected with the liability for accidents involving land-based nuclear installations and nuclear ships. The Vienna Convention on Civil Liability for Nuclear Damage of 21 May 1963, elaborated under the auspices of the Agency, and the Brussels Convention on Liability of Operators of Nuclear Ships of 25 May 1962, in the elaboration of which the IAEA took part, introduce new principles which may be relevant to any similar instrument regarding liability in respect of space vehicles. The Agency is continuing to study liabilities of these kinds.

In summary, let me say that IAEA would like to offer its experience to help promote the peaceful uses of outer space and the work of this Committee.

Dr. LEROUX (World Health Organization) (interpretation from French):

I should like only to repeat here the great interest that the World Health Organization attaches to the problems created by the peaceful uses of outer space from the standpoint of health. As is stated in document A/AC.105/L.12, page 29 of the French text, my organization is considering the role it is called upon to play in the peaceful uses of outer space. With the assistance of three consultant experts, the World Health Organization, among other things, studies the question of how the knowledge attained through space activities can be applied to the solution of present-day problems in the field of health, such as cardio-vascular diseases, contamination of the air, health in general, medical research and radiation.

As soon as the WHO has defined the tasks to be undertaken on the basis of such recommendations, it will form the necessary personnel for the study of such questions.

Mr. BELLRINGER (International Civil Aviation Organization):

Mr. Chairman, your Committee is already aware of the past activities and continuing interests of ICAO with respect to the peaceful uses of outer space as reported in the review A/AC.105/L.12.

ICAO is a potential customer for the services of space techniques rather than an agency for co-ordinating their development and like all customers we are carefully examining all new products as they are demonstrated or proposed.

In this context the most important contribution that I believe we can make is to develop and progressively refine our operational requirements and ensure that these are known to those who are developing new systems.

In the second half of 1965 we plan to hold the Fourth ICAO Air Navigation Conference, one task of which will be to review our present and future expected operational requirements for long distance navigational aids systems. This activity, I should emphasize, will not deal directly with techniques; rather, we will be concerned with such matters as: required accuracy, acceptable forms of presentation of information to pilots, etc.

The Air Navigation Commission of ICAO which is the 12-man technical advisory body to the Council is currently considering the desirability of convening in the following year, 1966, a world-wide conference with predominantly communications interests. At that time, if the meeting is held, an opportunity will exist for examining ICAO's space policy in the communications area.

I have mentioned these two activities in particular as I am anxious that you should have no false impression of the magnitude of any contribution ICAO may be able to make or the time by which we would find it possible to undertake any extensive work related to technical studies.

I am sure you will understand that space techniques for communications and navigation for civil aviation will have to compete with existing conventional techniques. Hence before they are brought into regular operational use there will need to be clear proof that they can:

- (a) enable us to solve operational problems for which there is no apparent solution using conventional techniques; or
- (b) offer sufficient advantage with respect to the cost of providing facilities to warrant a change-over from existing to new equipment.

In conclusion, I thank you for the privilege of being able to speak to you briefly and if there is any way that I can assist the Committee, perhaps in response to questions concerning the structure or work of ICAO, I am entirely at your service.

The CHAIRMAN: With this last statement the general debate is now terminated. I shall call on the Rapporteur who has asked for the floor.

Mr. CARVALHO SILOS (Brazil): In my capacity as Rapporteur and in order to facilitate the work of the Committee and the preparation of our report to the General Assembly, I propose that the Committee take up the recommendations made by the two Sub-Committees one by one, discuss them, make any necessary amendments, and adopt them in their final form for inclusion in the report.

This will be easy in the case of recommendations made by the Scientific and Technical Sub-Committee. The Sub-Committee's recommendations are set out under

(Mr. Carvalho Silos, Brazil)

six headings: First, Exchange of Information; second, Encouragement of International Programmes; third, Education and Training; fourth, International Sounding Rocket Launching Facilities; fifth, Potentially Harmful Effects of Space Experiments; and sixth, General.

The recommendations under the first five headings are preceded by a short introductory narrative giving general background information. These and other paragraphs are useful and should, I believe, be maintained in the Committee's report to the General Assembly, with any modifications the Committee considers desirable.

With regard to the report of the Legal Sub-Committee, I would propose to put before the Committee a draft paper summarizing the work of the Sub-Committee, enumerating the proposals and amendments submitted, and setting out the conclusions reached by the Sub-Committee at its session this year. I hope to be able to present the draft within two days.

The completed draft report would consist of an introduction giving a factual account of the proceedings of the Committee and its Sub-Committees; a chapter on the report of the Scientific Sub-Committee; a chapter on the report of the Legal Sub-Committee, and a note on registration.

The CHAIRMAN: It appears that no other member wishes to take the floor now. We have no speaker for this afternoon's meeting and therefore the meeting is cancelled. Tomorrow morning we shall start with the consideration of the next item, namely the special debate on the Scientific and Technical Sub-Committee's report and the reports of the ITU and the WMO. We have only two speakers up to now, but I would like to ask those who intend to participate in the special debate to inscribe their names as soon as possible so that we can proceed with our work.

The meeting rose at 12.30 p.m.