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COMMITTEE ON THE PEACEFUL USES OF OUTER SPACE

VERBATIM RECORD OF THE TWENTY-SECOND MEETING

Held at Headquarters, New York,  
on Friday, 13 September 1963, at 10.30 a.m.

Chairman:

Mr. MATSCH

(Austria)

1. General debate (continued)
2. Report of the Scientific and Technical Sub-Committee on the work of its second session and the reports prepared by the World Meteorological Organization and the International Telecommunication Union
3. Report of the Legal Sub-Committee

## GENERAL DEBATE (continued)

Mr. CHAKRAVARTY (India): We are happy to note the spirit of compromise that has characterized the speeches of the representatives of the two space Powers who spoke on 9 September and the constructive discussion that took place yesterday.

On the legal side, we note that there is agreement on some principles, disagreement on others and a possibility of rapprochement on certain others. It seems that the space Powers have given thought to the problems in the intervening period since the discussion of these principles last May, and we now appear to be on the threshold of some further advance. I was particularly happy to hear Mr. Fedorenko say that he was ready to co-operate in the setting-up of working groups to go into drafts of the instruments concerning the laws of liability for space vehicle accidents and assistance to cosmonauts in distress. We ourselves had earlier expressed the view that the time appeared to be ripe for drafting these laws of liability and assistance into suitable instruments. This advance could, perhaps, be recorded in the report of the Committee. Here, I would like to say that we share the views expressed by the representative of Australia that the second meeting of the Committee should be held not too near the commencement of the General Assembly session. We hope that by a suitable planning of the meetings of the sub-committee it may be possible to achieve this objective next year.

As regards the principles for a space code that are before us in the drafts submitted by the Soviet Union, the United States, the United Kingdom and the United Arab Republic, it is the feeling of my delegation that the time is propitious for the widening of the area of agreement, but we appreciate that we do not have enough time now to discuss ways of a further rapprochement. We are happy, however, to note that the space Powers have engaged in consultations, and it is our earnest hope that they may be able to further reconcile some of the outstanding differences by the time the matter comes up before the General Assembly. My delegation would, therefore, reserve comment at this stage on further steps that could be taken, besides those outlined by us in the Legal Sub-Committee.

(Mr. Chakravarty, India)

I should not like to pass over, while I am commenting on the report of the Legal Sub-Committee, the question of keeping outer space free from military use. All of us in this Committee, including the two space Powers, are now giving greater attention to this important question. In the banning of atomic tests from outer space, recognition has already been accorded to the importance of preserving outer space for peaceful purposes only, and let us hope that it is the first step that has been taken in that direction.

The view had been expressed last time that the scientists should have a go at the problem of experiments having harmful effects in outer space so that the scientists' suggestions might help us in the formulation of legal principles on this issue. In this respect the Scientific Sub-Committee has been unable to offer us much help. India has made certain proposals in the Scientific and Technical Sub-Committee in this regard and although they received a fairly wide support unfortunately they could not be accepted. There does not appear to be enough time during this session of the Committee, for us to enter into any fruitful discussion of the suggestions then made by us. We, however, reserve our right to bring up this question again at an appropriate time.

Let me also welcome the encouraging statements made by the space Powers on the question of satellite meteorology and satellite telecommunications. These are fields in which all the non-space Powers, particularly the under-developed countries, can actively participate and from which they also derive great benefit. The United Arab Republic proposal made earlier this year for training of scientists from under-developed countries in outer space matter is particularly relevant in the field of satellite meteorology and telecommunications.

Let me congratulate the Soviet Union and United States Governments on the Blagonravov-Dryden agreement under which the two space Powers will co-operate on certain joint projects. We have always felt that such joint projects will help in the solution of legal and other problems before us.

Permit me now to refer to those paragraphs of the report of the Scientific and Technical Sub-Committee which refer to the establishment of the Equatorial Sounding Rocket Launching Site in Thumba in India under

(Mr. Chakravarty, India)

United Nations sponsorship, as we have a direct responsibility in this. Under paragraph 23 (a) of the report, the Committee is invited by the Sub-Committee to establish a group of space scientists to be named by the Scientific Sub-Committee to visit the Indian station and advise the Outer Space Committee on the acceptance of the United Nations sponsorship.

The Committee will recall that the Government of India had submitted the Committee a memorandum on the establishment of such a launching facility in India in document A/AC.105/8 and had subsequently circulated a manual describing the Thumba sounding rocket launching facility in document A/AC.105/9. The Committee will be interested to learn that the Thumba facility has made considerable progress and should be operational by the end of November for sodium vapour and cloud experiments. Facilities for the magnetometer experiment and for undertaking meteorological sounding rocket experiments will be ready by the end of December 1963. We have every hope that by the end of this year facilities at the site will be completed for assembly and firing of Nike-Cajun rockets, for the reception of telemetered signals and for DOVAP tracking of the rockets. In this connexion I should like particularly to express the appreciation of the Government of India for the collaboration of the United States of America in this programme and for all the help we have received from NASA. We are also indebted to the Soviet Union for its assistance in space experimentation at Thumba and for the equipment it has promised to supply for the site. We are equally grateful to the French Space Organization which has promised to collaborate in the sodium vapour experiments and also to supply equipment for the facility, including radar. We should like also to express our appreciation for the special interest which Canada, the United Kingdom, Japan and Australia have taken in this Indian programme.

We are grateful to the Sub-Committee for expressing its appreciation of the initiative taken by the Government of India in regard to this Equatorial sounding rocket launching facility. We welcome the recommendation of the Scientific and Technical Sub-Committee to establish a group of space scientists to visit the Indian station and to advise the Outer Space Committee on the acceptance of United Nations sponsorship. My delegation

(Mr. Chakravarty, India)

may to inform the Committee that the Indian National Committee for Space Research -- INCOSPAR -- extends a cordial invitation on behalf of the Government of India to a group of scientists to visit the Thumba Site during November or in the latter half of December this year, to enable them to advise the Committee on the acceptance of the United Nations sponsorship in accordance with the basic principles approved by the Committee in 1962. The Scientific and Technical Sub-Committee recommended a group of approximately five scientists drawn from States members of the Outer Space Committee and familiar with space research facilities and activities. We would like this group to include scientists from the countries which, as I have just mentioned, have taken great interest in this project of ours. As soon as the Committee has selected the group, the Government of India will make necessary arrangements for the visit.

Mr. WYZNER (Poland): It would be extremely difficult to find any dimension, any particular branch of science or technique showing such rapid, rapid and constant progress as the conquest of outer space by man. During the very brief and busy period of time which has elapsed since the first envoy of humanity travelled into space we have witnessed such amazing achievements as, for example, the recent group flight of the Soviet heavenly twins, including cosmic flight of Valentina Tereshkova, the first woman to perform such a venture. It is by now an accomplished fact that we are projecting into outer space the great achievements of human civilization.

I have no doubt, Mr. Chairman, that all the members of this Committee would wish that the progress achieved in peaceful uses of outer space be followed, at least in part, by similar progress in international, political, technical and legal co-operation relating to outer space.

It is really gratifying for my delegation that -- contrary to the situation on some previous occasions -- we may record a few quite outstanding important events in this particular field, which augur well for the further development of the peaceful uses of outer space.

(Mr. Wyzner, Poland)

First of all, the signing of the Moscow treaty banning nuclear weapons tests in the atmosphere, in outer space and under water, which was recalled also by many speakers who preceded me. There can be no doubt that the entry into force of the Treaty, signed already by more than ninety States, will play a decisive part in cessation not only of the pollution of outer space, but also, if we may say so, will help to put an end to the pollution of the international, political atmosphere. The Polish Government, which welcomed the conclusion of the Treaty with great satisfaction and was among the first States to sign it, has stated that:

"All people conscious of the responsibility of Governments, States and nations for the preservation and consolidation of peace have greeted this Treaty with recognition and hope. The Government of the Polish People's Republic also considers that an essential step has been made along the road to new agreements in the interest of peace and the security of nations."

Among other important and encouraging events which took place recently, the conclusion of the first memorandum of understanding to implement the bilateral space agreement, signed by the Soviet and United States representative was of particular importance. The constructive co-operation envisaged in the memorandum in exchange of meteorological data, co-ordinated launchings of weather satellites, arrangements for communications satellite experiments and the joint American-Soviet magnetic field survey through the use of artificial satellites -- all this deserves our endorsement.

Of course, the main part in the developing of international co-operation in outer space is to be performed by two cosmic super-Powers -- the Soviet Union and the United States. But it might be of interest to you, Mr. Chairman, to know that my country also co-operates with the international scientific community in the field of outer space research.

Poland, a member of the international service, now has eleven satellite observation centres. So far those centres have made more than 20,000 observations, both visual and photographic, of Soviet and American satellites. Some of them also carried out several cycles of radio observations of satellites. On the basis of results obtained both in Poland and abroad

(Mr. Wyzner, Poland)

in positional observations of satellites, a number of methods have been developed for using satellites in three-dimensional geodesy, while radio observations of satellites have yielded information about the propagation of radio waves in the ionosphere.

As for space research proper, the Polish Academy of Sciences has recently formed a Committee for Space Research, which is in close contact with COSPAR. Some of the Polish results in this field were described in papers prepared for the Fourth COSPAR Symposium held in Warsaw last June.

During the time which has passed since the last session of this Committee, both our Sub-Committees, Scientific and Technical as well as Legal, held their respective sessions and adopted their reports. Since my delegation has already had an opportunity to comment on them in the Sub-Committees, I shall mention only a few problems which, in my opinion, deserve the attention of this body.

First of all, I wish to express my delegation's satisfaction with the results achieved by the Scientific and Technical Sub-Committee. We congratulate it on acceptance of agreed recommendations concerning such matters as potentially harmful effects of space experiments or the training of specialists in the field of space research, and also the problem of the establishment of launching facilities for sounding rockets which was dealt with a moment ago by the representative of India. I should like also to express our appreciation to the World Meteorological Organization and the International Telecommunication Union for the valuable work they have lately done in this field.

A more difficult situation exists in the Legal Sub-Committee. Although a very useful and constructive exchange of views took place at its last session no spectacular results were recorded in the discussion on a declaration of the general principles governing the activities of States relating to the exploration and use of outer space nor on the other specific issues.

There is no doubt that an essential condition for the peaceful utilization of outer space is the formulation of its legal status in a way

(Mr. Wyzner, Poland)

corresponding to the interests of all States, the interests of peaceful international co-operation. Outer space should not constitute a legal vacuum and should not be a battlefield in the struggle for power. That is why it is essential to extend the progressive principles and norms of international law to this new dimension.

When we are talking about the legal status of outer space we do not have in mind the adoption of another resolution or resolutions of the General Assembly, as advocated by some delegations. As we have already pointed out in the Sub-Committee, such resolutions, being merely recommendations, as such cannot be considered as sources of law in the full sense of the word and substituted for legally binding documents or treaties. This is so, though we are undoubtedly right in attaching particular importance to some of them.

To prove the necessity of creating the system of the space law one could invoke not only the opinions of many individual jurists and diplomats, but also the results of studies of non-governmental organizations, such as the International Astronautical Federation, the International Law Association, or -- recently -- the Inter-American Bar Association.

Among the proposals which have been dealt with by the Legal Sub-Committee, the Soviet draft declaration of the basic principles governing the activities of States in the exploration and use of outer space constitutes, in our opinion, the most complete and acceptable document. On the other hand, remaining proposals put forward by the delegations of the United States of America, the United Arab Republic, the United Kingdom and Belgium contain certain thoughtful and constructive provisions. It is obvious that some general principles stemming from existing experience and analogy to other fields of law must be adopted by States if we want to ensure the rule of law in every domain of human activities.

In this respect my delegation would insist on the inclusion in the declaration of some fundamental principles, such as the one prohibiting all attempts to hamper or render more difficult the exploration of outer space for peaceful purposes by other States. It is also necessary for example

(Mr. Wyzner, Poland)

to have provisions under which the admirable achievements in space, such as communication satellites, should not be used for war propaganda or for inciting racial hatred and enmity. At this juncture we were gratified to learn from the thoughtful statement of our Austrian colleague that his delegation sees the advisability if not the necessity of inserting a provision to this effect.

The universally acceptable draft agreements on assistance to astronauts and space vehicles, as well as on liability for space vehicle accidents, could possibly be worked out by the competent group of legal and technical experts.

It is the sincere belief of my delegation that, in the spirit of good will and compromise, by a joint effort of all delegations around this table we might be able to overcome existing difficulties and to succeed in eliminating the differences which obstruct the progressive development of the law of outer space.

It is a well known fact that any major event occurring on earth is liable to have its repercussion in other spheres of human activity. Because of this interdependence we can also predict that the recent efforts towards creating more favourable conditions for international co-operation here on our globe would directly affect relations in space. And, in turn, every step towards friendly co-operation in outer space would encourage the improvement of relations between different systems and States. That is why we believe it is imperative for this organ to proceed in the spirit of constructive co-operation so as to come to mutually acceptable decisions.

Mr. FRANCO FIORIO (Italy): At this late stage in our proceedings, a few days before the General Assembly is scheduled to meet, I do not see much merit in going over the results of our past endeavours, including the work of our legal and technical sub-committees, in any detail. I wish rather to concentrate, briefly, on the prospects that are open to us for the future.

Such prospects are indeed far more encouraging than they have ever been. The conclusion of the Moscow agreement on the banning of nuclear tests, not only substantially eliminates the risk of nuclear contamination in outer space, but has created an atmosphere of expectancy in which international co-operation, also and especially in the field of space exploration and activities, can and must bear positive results for all mankind.

On the basis of the statements heard on Monday afternoon by the representatives of the United States and of the Soviet Union, we feel that the Committee can envisage a schedule for a most constructive -- indeed conclusive -- work at its next session. This will be of the essence, especially with regard to the legal and, I might add, political problems which have so far lagged behind the accomplishments on the technical level.

May I add that the Committee has already played a vital part, even if not a conclusive one, with regard to the pending issues in this area. My delegation is in fact convinced that the thorough and frank discussions which took place in the Legal Sub-Committee last April had a direct bearing on widening the area of agreement. This role the Committee and its Sub-Committee should usefully pursue in the future.

We wish also to express our particular appreciation for the conclusions arrived at by the Scientific and Technical Sub-Committee. Its work and the results it has achieved should be viewed also in the perspective of fruitful practical arrangements for technical co-operation such as those agreed upon by the Soviet Union and the United States.

The issues outstanding are still several and indeed complex. However, solutions are in sight. The delegations of the United States and the Soviet Union have listed, in their statements, areas where substantive agreement exists and needs only to be spelled out formally. Furthermore, several suggestions have

been set forth by various delegations. Amongst them we consider very important that of the establishment of working groups to consider the problems relating to the drafting of international agreements with respect to liability for damage caused by space vehicles and for the rescue, assistance and return of astronauts and space ships. In these areas practical detailed arrangements are of the essence, already in the present phase of space activities.

We agree also with the suggestion voiced that States should bear responsibility for activities in outer space, with respect to possible private ventures and similarly that international organizations together with States which are a party to them should have responsibility over activities in outer space undertaken by such organizations.

The groundwork progress appears to have been broken also in respect of the problem of preventing activities in space which might prove harmful to space research and exploration by the relevant recommendation of the Scientific and Technical Sub-Committee and by the establishment of the special consultative body in the framework of COSPAR. Thought should be given to the suggestion that the Secretariat may prove instrumental in facilitating the work of the Committee in the technical field by preparing appropriate background information. Equally we see much merit in the suggestion by the Soviet delegation that the problem of bio-astronautics be considered in the future work of the Scientific and Technical Sub-Committee.

The development of national and international programmes for the exploration and use of outer space is proceeding at a fast pace along practical lines of scientific and technical progress. To cope with the requirements of this fantastic evolution, our Committee must retain and improve its already demonstrated ability of taking practical steps even whilst debating largely theoretical questions.

This capability is essential if we wish to pursue with success the principal aim of our endeavours which should always be to act with a view to facilitating the achievement of the concrete benefits which can derive to all mankind, and, in particular, to the developing countries from the peaceful use of outer space. This will remain the main objective of my delegation.

Mr. HAJEK (Czechoslovakia): In reviewing, summing up and evaluating the results of its activities between the Seventeenth and Eighteenth General Assemblies, our Committee is faced with the old familiar picture reflecting one of the basic problems of mankind today, namely, the continuing and ever-growing lag in this field of international legal and political settlement, compared to the rapid progress of science and technology. In fact, many of our colleagues at this session have repeatedly mentioned the outstanding achievements in the field of research and exploration of outer space: the group flight of Vostok V and Vostok VI by Bykovsky and Miss Tereshkova, the launching of interplanetary stations for the exploration of Mars and Venus, as well as the systematic research undertaken by a number of nations. In the sphere of material progress and development of this young and vigorous branch of science and technology, considerable results have been achieved as far as international co-operation is concerned.

We appreciate the report of the Scientific Sub-Committee and the valuable recommendations concerning the exchange of information on space research, international co-operation in the use of satellites for meteorological purposes, the organization of long-distance communications, the establishment of launching facilities for sounding rockets -- and in this connexion I should like to express how gratified our delegation was with the declaration just made in this Committee by the representative of India -- the training of specialists in space research and the prevention of potentially harmful experiments in outer space.

(Mr. Hajek, Czechoslovakia)

Another important step forward is constituted by the first memorandum of understanding to implement the bilateral space agreement of 8 June 1962 between the Academy of Science of the Soviet Union and the National Aeronautic and Space Administration of the United States. The exchange of data on meteorological satellites, including appropriate installations such as the communications link, arrangements for passive communications, satellite experiments, magnetic field surveys through the use of artificial satellites, exchange of research information from the launching of automatic space stations towards Mars and Venus, as well as projected meetings of scientists -- all this points to the very concrete forms and methods opening new possibilities and new prospects for co-operation which can give new impetus to the work of our Committee and facilitate its task considerably.

The important and positive results in the material progress of space research and the achievements in developing international co-operation to promote this progress are still in sharp contrast to the other branch of activity assigned to this Committee by the General Assembly, namely, juridical regulations for safeguarding the peaceful use of outer space. Our delegation, as a number of other delegations here, has been consistent in emphasizing the importance and necessity of progress in this field. It remains our conviction, which is confirmed by developments, that an absence of unequivocal and binding norms of international law could slow further progress in research and penetration of outer space, create considerable obstacles in international co-operation in this field, and even possibly be conducive to causing grave complications in international life.

The spring session of our Legal Sub-Committee, unfortunately, did not bring about any substantial progress in completing the tasks assigned to it in resolution 1602 (XVII), namely, the elaboration of basic principles governing the activities of space in the exploration and use of outer space and on liability for space vehicles in accidents, assistance to and rescue of astronauts, and other legal problems. The views of the members of the Committee have been further clarified, it is true, and that is a certain positive feature of the spring session of the Legal Sub-Committee, but the task recognized by the General Assembly and, in general, by this Committee is an urgent one and has not been accomplished.

(Mr. Hajek, Czechoslovakia)

The Legal Sub-Committee did not succeed in overcoming the deadlock which it encountered. What was the reason for this deadlock? Analysing the whole of our discussions, the comments, and the repercussions of public opinion, we cannot but feel that the impact of the preponderance of military strategical considerations, of military strategical elements, with which one side approached the problems of outer space, the tendency to seek superiority in the capacity to wage a thermonuclear war -- so widely publicized in the speeches of many political personalities and in the press of certain countries -- cannot but constitute a serious obstacle to the application of the principles of the Charter, to the legal regulations regarding outer space, and to the very important task so eloquently mentioned once again here by the representative of Poland, the task of creating appropriate laws regarding the use of outer space. Thus the deadlock in endeavours to carry out this important objective was conditioned by and connected with the deadlock which has existed for a long time in the discussions on disarmament. For the same reason it has been stressed by all our colleagues here that the present situation offers a chance of overcoming this deadlock.

The Moscow Treaty on the banning of nuclear tests in the atmosphere, under water and in outer space has been signed by the three nuclear Powers and has found world-wide support. It is superfluous to stress that the Government of the Czechoslovak Socialist Republic, which was among the first states to sign this Treaty, will give it its fullest support, considering it an important step forward not only in the solution of the test ban problem, but also in creating a better international climate. We also feel -- and here we agree with the opinion of many representatives here -- that this Treaty has created a new atmosphere as far as the problem of safeguarding outer space for peaceful uses is concerned. The Treaty constitutes a responsibility on the part of the scientific Sub-Committee to prevent harmful experiments in outer space, a responsibility which is, of course, only partial, but in any event, a most important one.

Nuclear explosions in outer space constitute an immense danger to the lives of cosmonauts and create obstacles in the peaceful exploration of outer space itself. The removal of this danger will facilitate the work of our Committee in the legal and, of course, also the political spheres, for the political angle is contingent on the legal one.

(Mr. Hajek, Czechoslovakia)

The tendency which had previously blocked this achievement seems to have decreased, although it is still far from being completely overcome. Thus it seems to my delegation that positive elements for better prospects in the field of creating a system of law on the exploration and use of outer space are appearing in the foreground and I think that the present session has displayed them in a very marked manner.



(Mr. Hajek, Czechoslovakia)

As long ago as the spring session of the Legal Sub-Committee, the Soviet Union took a very important step by re-drafting the draft declaration to meet the objections and opinions of the Western Powers. At the opening meeting of this session, we heard the Soviet representative declare the preparedness of his delegation to meet further the position of other delegations in order to accelerate the negotiations on the creation of a basis for a real agreement. There also seemed to be a way open to an agreement on the form of the legal document which will lay the basis for the legal system for outer space. As we all know, in the past there have been profound differences with regard to this.

I should like also to stress the importance of the willingness of the Soviet delegation to proceed to the creation of working groups for settling the most important differences and problems in principle, so that the Committee may proceed with and accelerate the work for establishing the exact legal formulation of the agreement. My delegation fully appreciates this manifestation of good will by the Soviet Union and its willingness to reach agreement on this most arduous problem on the agenda of our Committee, namely, agreement on the legal principles. We appreciate the Soviet willingness to undertake all efforts to contribute to the most effective way of proceeding to solve and settle these problems.

We would like at the same time to stress that in being willing to compromise and to search for agreement on the different problems, we remain faithful to certain basic principles which we feel are deeply rooted in the concept of the peaceful uses of outer space, such as the principles we have supported in previous sessions of banning espionage and war propaganda from the use of outer space. We hope that on these principles which were defined and defended by the socialist delegations on the basis of the concept of the peaceful uses of outer space, and on many other principles, we will meet with more understanding from the other side than we have met up to now. At this session of our Committee, the display of flexibility and the initiative shown by the Soviet delegation was welcomed by many of our colleagues. I must say that my delegation expected more manifestations of good will and more flexibility from the side of the Western Powers. We feel, of course, that in the speech of the United States representative there were hopeful hints and signs, and we hope that in the bilateral negotiations between the Soviet Union and the United States delegations

(Mr. Hajek, Czechoslovakia)

as well as in the future work of our Committee, these expectations will be realized. As I said, in feeling a certain lack of satisfaction with regard to the legal side of our work, my delegation now associates itself with those representatives who have expressed strong hopes that the future work of our Committee may be facilitated and speeded up in the field of the formulation and creation of a system of law for outer space, thanks to the very hopeful events which have taken place, such as the signing of the Moscow Treaty, and thanks to the atmosphere of co-operation and good will which seems to have been expressed at this session of our Committee.

Mr. ELIHON (France) (interpretation from French): I would like to confine my intervention to a few brief remarks, remembering all the time that in this Committee on the Peaceful Uses of Outer Space our main goal is the elaboration of a report for submission to the eighteenth session of the General Assembly.

The speakers who have preceded me have summed up very extensively the events which have occurred since the last session of this Committee. My delegation is far from underestimating the importance of the space exploits of the various members of this Committee, but, nevertheless, I believe it is preferable not to recapitulate all this once more. I would like to stress, however, that this does not mean that we lack interest in the space exploits.

We would like to refer briefly to the reports of the Sub-Committees and ITU and WMO. A most important task before us is the question of the work of the Legal Sub-Committee and the way it will appreciate future developments.

My delegation has no lengthy remarks to make on the way the May session of the Legal Sub-Committee has been summed up. The Rapporteur found very objective terms to describe the more or less negative proceedings. However, we would like to point out that recent initiatives have enabled us to hope that progress will be achieved in the legal field, and in this regard the French delegation was favourably impressed by the conciliatory tone in the intervention made by the Soviet representative.

(Mr. Plihon, France)

It will be easily understood that my delegation is not yet in a position to pronounce itself on the substance of the problems touched upon in that statement. But it would be pointless to ignore the fact that numerous exchanges of view among the members of the Committee will be required in order to bring together the various points of view. My delegation feels that these contacts should have as their aim the preparation of the work of the Legal Sub-Committee when it is once more convened. We also feel sure that the forthcoming debates in the Political Committee of the General Assembly will likewise result in useful indications to serve as a guide for the discussions of the Sub-Committee.

Before concluding this brief intervention I should like to say a few words concerning the procedural suggestion made by the representative of the Soviet Union, who was developing a suggestion of the Austrian delegation, according to which one or two groups of experts would be appointed in the Legal Sub-Committee to work out a draft agreement, first on the matter of the return of astronauts, and secondly, on the problem of responsibility in case of damage. Bearing in mind resolution 1802 (XVII) of the General Assembly and noting that operative paragraph 4 thereof did not establish any order of priority among the various questions before the Legal Sub-Committee, my delegation interprets the Soviet proposal as meaning that the two questions I have just mentioned, as well as the declaration of principles, will be discussed concurrently and in the same body, that is, the Legal Sub-Committee.

Finally, I would like to indicate that the report of the Legal Sub-Committee, in document A/AC.105/12, should be able to find its place in the report of this Committee without the necessity of making significant changes in it. The Rapporteur could be instructed, for instance, to propose to the members of the Committee a new wording for section III of paragraph 11 of the Legal Committee's report, bearing in mind the desire expressed by the members of our Committee to see the contacts and consultations on legal problems still remaining unsolved take place under conditions allowing as broad a confrontation of views as is possible.

Mr. HASEGANU (Romania) (interpretation from French): Like our other colleagues who have spoken at previous meetings, and today as well, I should like at the very beginning to express my satisfaction at the fact that the present session of our Committee is taking place under international conditions which favour co-operation among States. Those conditions result from a whole series of important international developments among which an outstanding role is played by the Moscow treaty banning nuclear tests in the atmosphere, in outer space and under water.

Space flights carried out this year by Soviet and American astronauts have given a great impetus to the conquest of outer space. New research in space undertaken by scientists of these two countries and by the entire world have considerably broadened the possibilities for international co-operation in this field. In this matter we welcome the Rome agreement on space matters concluded between the Academy of Sciences of the Soviet Union and the NASA and we feel that its provisions will be reflected in positive form in the future development of the work of our Committee.

Examining in the light of these developments the activities of our Committee, of its subsidiary bodies and of the specialized agencies, the Romanian delegation is happy to note a series of successes achieved by these institutions during the course of the present year.

We take a very positive view of the work accomplished by the Scientific and Technical Sub-Committee during its second session which took place at Geneva.

The recommendations concerning programmes of space research with the assistance of meteorological satellites, including the need for establishing a world-wide weather watch, are of great and special importance. The implementation of these recommendations will promote the development of a wide international collaboration and will further new advances in the meteorological field.

We likewise are in agreement with the Sub-Committee's recommendations concerning the programme for international co-operation in the field of space telecommunications, including the recommendation involving recognition that international telecommunications in space should be available to all countries in the world without distinction. The studies carried out by the ITU in implementation of resolutions 1721 (XVI) and 1802 (XVII) of the General Assembly

(Mr. Hasegaru, Romania)

are of great usefulness for the future development of telecommunications within the framework of the peaceful utilization of outer space.

In order to bring about a greater participation by States in space research, it is also necessary to study the Sub-Committee's recommendations concerning education and professional training in this field.

Finally, we feel too that the recommendations regarding the formulation of a working-paper on the activities and resources of the United Nations, the specialized agencies and other international organizations, are equally useful. The elaboration of these documents will enlarge the area of information of States in the space field.

With regard to the activity of the Legal Sub-Committee, we note that despite its constant efforts no agreement has yet been achieved. However, we feel that the debates which took place this year during the course of our meetings have been useful. These discussions have brought the divergent points of view closer together and have created conditions favourable for the reaching of an understanding in the near future.

This, then, is the situation in which we find the work of hammering out a declaration on the principles of space law. On a certain number of principles representatives have come to agreement, while on others there has been a narrowing of the gap separating their views.

We share the opinion expressed by certain other representatives that at the present time there are many points on which compromise is possible on the principles of space law. Therefore we must achieve a spirit of mutual understanding and reciprocal concession.

Regarding the nature of the document which will contain these principles, we are of the opinion that the declaration must be mandatory in nature. This will contribute to a greater extent to respect for the principles adopted by us and will constitute an encouragement for the development of international co-operation among States.

(Mr. Haseganu, Romania)

The Romanian delegation is in agreement with the proposal made by the representative of Austria, concerning the establishment of one or two groups of experts in the Legal Sub-Committee. However, we feel that we must first come to agreement on the content of each principle of space law.

While taking into account the conditions so favourable at the present moment, we join with those who maintain the necessity for further effort aimed at eliminating as soon as possible existing differences of opinion and creating the legal bases for out-space law. In this regard we feel that the statements recently made in our Committee by the representatives of the Soviet Union and the United States allow us to entertain new hopes.

The delegation of Romania is ready to co-operate with all delegations that sincerely seek the realization of this agreement. We are ready to examine any proposal aimed at bringing together the points of view of the various States and achieving agreement in this field of activity. The achievement of such agreement would serve to broaden co-operation in space among States and, at the same time, will serve to enhance the prestige of our Committee.

Mr. FEDORENKO (Union of Soviet Socialist Republics) (interpretation from Russian): The Soviet delegation considers it necessary to make some brief comments with regard to the discussion which has taken place in the Committee, a discussion which, in our opinion, has been concentrated to a large extent on the question of the international legal principles for national activity in space.

It is characteristic of the proceedings that the majority of delegations in their statements approached the problem from a positive position and spoke of the need for continuing joint efforts in a constructive search for the solution of those questions which are still the subject of differences and which prevent the completion of the work of the Committee on the elaboration of legal principles.

We would like to express our gratitude to those representatives on the Committee who expressed their appreciation of the new and important steps taken by the Soviet Union towards reaching agreement on a number of major provisions of the declaration of international principles for national activity in space. It is to be deplored that some delegations have so far merely limited themselves to expressing general appeals and wishes. Nevertheless, we hope that in the near future, and in particular during the eighteenth session of the General Assembly, work on the search for agreement on the remaining disputed questions will be continued. With good will on the part of those engaged in this search, success can be achieved.

Attempts made by several delegations to find agreement are of special interest. In reply to the new steps made by the Soviet Union, the delegation of Austria, for example, did not limit itself to expressing a general favourable appreciation of the spirit of collaboration which has characterized the work of this session. The delegation of Austria made specific proposals about possible ways of formulating several principles on which agreement has so far not been reached. The statement of the representative of Austria shows once again that the Committee is far from having exhausted the possibilities of solving these disputed questions. The representative of Austria referred in particular to the provisions concerning the ban of the use of satellites for war propaganda. The representative of Austria, if we understood him correctly

(Mr. Fedorenko, USSR)

considers it correct and right in principle that outer space and the achievements of the human mind in that field should not be used in a way harmful to the interests of mankind for war propaganda. We also note the reference made to the resolution of the second session of the General Assembly, which was adopted unanimously, on the prohibition of war propaganda. Although in this case no conclusive wording was adopted, nevertheless, the approach to this and other questions raised in the statement by the representative of Austria reflects the desire to seek agreement.

Delegations also dealt on the question of potentially harmful experiments in outer space. Statements were made that in principle arbitrary experiments in space which might cause harm to space research should not be allowed. Of course, how to guarantee this is another matter. There is still no jointly agreed approach on this subject. However, it is important that there is an ever increasing desire to find such a solution.

Another point worthy of attention is the fact that the question of the permissibility of conducting activity in space by private companies, under the supervision or control of their respective governments, was dealt with. The Soviet delegation considers it essential to point out that in this field it would be possible to consider the question of not excluding from the declaration possibility of activity in outer space by private companies, on the condition that such activity would be subject to the control of the appropriate State, and the State would bear international responsibility for it.

In making new and further efforts to come to an agreement, the Soviet delegation will constantly be guided by the view that the search for mutually acceptable solutions and reasonable compromises presupposes specific, concrete and constructive steps on the part of all countries. By reasonable compromises, we do not mean a monologue by one of the parties which is to be accepted by others without counter-proposals or concessions. Agreement also assumes some sort of rapprochement -- a movement by the two parties towards each other. There must be mutual concessions in the interests of achieving mutually acceptable solutions.

(Mr. Fedorenko, USSR)

Along with the positive elements of the discussion, we cannot fail to draw attention to the fact that the statement by the representative of Australia introduced a note of dissonance. Having expressed satisfaction with regard to the new Soviet proposals, the Australian representative expressed disappointment that the Soviet Union apparently continues, as he put it, to insist on a number of principles which are supposedly not generally acceptable. In actual fact, we believe that with good will a solution can be found for these questions. The approach shown by other delegations indicates that several provisions which the Australian delegation considers to be unacceptable or inappropriate, can be included, after careful consideration, in one or another form, in the declaration.

(Mr. Fedorenko, USSR)

Of course, we should not simply note divergencies and to take note of the positions of other people merely as a way of forever putting off the solution of important questions. We must show, and this is the important thing, the necessary mutual understanding and then a satisfactory solution will be found. We should like to hope that the representative of Australia, together with the other members of the Committee, will find it possible to make his own positive contribution to the solution of the question we are dealing with.

Through its new proposals which are designed to resolve controversial issues, the Soviet Union has once more showed that it is sparing no effort to find a mutually acceptable solution to these questions in order to achieve the necessary rapprochement of the points of view on all questions which remain unsolved. We expect the other members of the Committee to act in a similar way. They should not let the favourable opportunities existing at the present time to slip away. The Soviet delegation, in its first statement in the general debate on 9 September and in this statement, has put forward a number of proposals which, in our opinion, make it possible to work promptly on the preparation of a declaration of principles for national activity in outer space. We, for our part, are prepared to start on this work immediately. Unfortunately, the Committee, for a number of reasons and circumstances could not deal with or engage in a detailed consideration of our new proposals concerning the draft declaration.

The Committee so far has not heard the statement of the representative of the United States from whom we expect that the new proposals of the Soviet delegation, made in order to achieve agreement, will be borne in mind and evaluated. We also expect a similar show of understanding by the representative of the United States. Nevertheless, during the discussion which took place in the Committee, all the delegations that spoke as a rule noted in favourable opportunities and existing good prospects which must be used in order to continue contacts and exchanges of opinion between delegations in order to reach agreement on the issues which are still a subject of controversy, and this to be done as soon as possible. We think that none of those who spoke disputed the basically important idea that the elaboration of fundamental legal principles for national activity in space, which would create an international legal code for space, is a pressing matter at the present time; nor did they think it was urgent.

(Mr. Fedorenko, USSR)

The Soviet delegation considers and is convinced -- and in its view this has been reaffirmed by the discussions which have taken place -- that there is an atmosphere of collaboration and a businesslike approach to the question under discussion. We note at the present time that the necessary opportunities and possibilities exist for the solution of questions connected with the elaboration of a declaration of principles on a mutually acceptable basis. The Soviet delegation expects that constructive efforts and measures will be made by other delegations in the Committee. If such efforts are made, it will then be possible to hope that we will soon see the Committee complete its great important work involving agreed legal principles for national activity in the use and exploration of outer space. It is hardly necessary to explain again that the approval of the United Nations of such a declaration and the assumption by States of legal obligations to observe the provisions of this declaration will be a substantial contribution to the cause of a further improvement of the international atmosphere and will strengthen the peace.

Mr. COOK (Australia): I am sorry that the representative of the Soviet Union feels that the Australian statement yesterday introduced a note of dissonance into this Committee's discussions. This was certainly not our intention, and I hope that a careful reading of our statement will satisfy the Soviet representative on that point.

We did in fact say that the Soviet representative's statement on Monday confirmed once again that the Soviet Union by no means had a closed mind. We welcomed the various advances made in that statement, and we hoped that those advances could be recorded in this Committee's report to the General Assembly. It is true that we went on from there to talk about one of the Soviet draft legal principles relating to potentially harmful experiments in space. On that we said that as presently drafted -- and I realize that there may be problems of translation -- it did seem to give each State a veto over the outer space work of all other States. Perhaps this is not intended and the Australian delegation, for one, sincerely hopes that it is not, for we do not see how such a provision could possibly work. The point is we do not see that the work of this Committee is going to be advanced unless the members of this Committee take up positions

(Mr. Cook, Australia)

faithfully reflecting their views on the issues before us. The fact is that despite the better atmosphere genuine differences of principles do still exist. To be resolved they must be discussed. We are not going to advance our work if all we say is what a wonderful job we are doing. We must rather state plainly and clearly what our thoughts are on various proposals which members of this Committee might put before us. It was in that light that the Australian delegation stated its position on this particular provision.

The Soviet representative this morning expressed the hope that Australia could make its own positive contribution to some of the disputed issues before us. We had in fact tried to do that on exactly this point, and we repeated in our statement yesterday the suggestion, made by the Australian representative in the Legal Sub-Committee last April, that consideration should be given to this question of potentially harmful experiments, that consideration should be given to whether a duty of international consultation, in the event of a proposed activity which the State thinks may be potentially harmful, could not be linked explicitly with the consultative group of COSPAR. That is a suggestion from the Australian delegation. We hope that it might be practicable to produce a revised draft along the lines of something like that. We are not trying to be rigid on this particular position, and we hope that other delegations will not be rigid. We too are interested in compromise, and we very much regret any inference which others might have drawn to the contrary.

Mr. BLAGONRAVOV (COSPAR) (interpretation from Russian): Before I start, I should like to express my gratitude for the honour which has been done by the United Nations Committee on the Peaceful Uses of Outer Space to COSPAR; I am referring to the invitation to this meeting. The President of COSPAR expresses his regrets that he cannot personally attend. He instructed me to represent COSPAR here and authorized me to outline those activities of COSPAR which might be of some interest to the Committee.

At the last session of the Scientific and Technical Sub-Committee last May in Geneva, great attention was paid to the activities of our organization which includes a large number of scientists from many countries and which has

(Mr. Blagonravov, COSPAR)

the opportunity of making a very full evaluation and appreciation of space research in all of its many aspects. During the discussion on many questions at the Scientific and Legal Sub-Committee, it was recognized that the United Nations Committee may receive substantial help from COSPAR in those cases when the Committee is dealing with questions of space research.

The Executive Council of COSPAR would like to explain its gratitude by the fact that COSPAR is strengthening its position from year to year and its activities are becoming very important for guaranteeing international collaboration. At the present time COSPAR has ten international scientific unions and twenty-three national organizations concerned with scientific research in space. Three new national clubs were admitted to COSPAR this year: the Hungarian Academy of Sciences, the Berlin Academy of Sciences and Austria. Romania and Mexico have declared that they would like to enter COSPAR. The scientific symposium organized by COSPAR was paid much attention by the whole scientific community. The fourth international symposium, held in Warsaw this year was attended by scientists from thirty-one countries. One very distinctive and positive feature of this symposium was that consideration was given to the voluminous summary report on the problems of space research, giving a summary of the results achieved in each particular aspect, giving those subjects for discussion on which no decision has yet been taken. Reports and papers were also heard at the symposium about the most recent scientific achievements which have as yet not been widely published. The participants in this symposium were able to have an exchange of views and to discuss the questions they were interested in.

At the symposium the problems of the upper stratosphere, the ionosphere and the magnetosphere of the earth into the interplanetary meteor and new planetary elements and radiation were discussed.

The activity of the working group set up by COSPAR on individual aspects of space research is also very useful. For example, the working group headed by Doctor Friedman of the United States made great efforts for working out an international programme of co-operation on the carrying out of the international year of the Quiet Sun, bearing in mind the recommendations of the Scientific and Technical Sub-Committee.

(Mr. Blagonravov, COSPAR)

The session of COSPAR, at its executive Council Session and also at the plenary meeting, considered the question of liaison between COSPAR and the United Nations; having noted the value of the scientific material submitted by members of COSPAR, we consider that such information should be submitted in future as information from Member States. National reports on space research submitted annually to COSPAR contain substantial information and their publication will continue. We believe that this information will also be interesting for the United Nations Committee for the Peaceful Uses of Outer Space. The Executive Secretary has been authorized to prepare for the United Nations Committee a special report on the activities of COSPAR, together with other organizations in the International Council of Scientific Unions. COSPAR will be an intermediary between the United Nations and the International Council of Scientific Unions. In order to provide information on space research this report will contain as an appendix international programmes such as the international year of the Quiet Sun and the world magnetic survey. It is also proposed that a list of all the organizations concerned with publication of space research should be compiled and submitted to the United Nations.

The COSPAR group on the study of potentially harmful experiments in outer space also carried out its preliminary organizational work. I think that the group can express its satisfaction with the Moscow treaty because the Moscow treaty has removed one of the causes of the existence of the Committee. In other words, it has removed the possibility of harmful experiments in outer space for the time being. The plenary committee of COSPAR on Synoptic Sounding Rockets could prove useful help in the question of the establishment of launching facilities for such rockets, and COSPAR intends to prepare for the next session a report on the appropriate geographical distribution of such launching facilities. This report may also be used by the Committee in establishing such international launching facilities.

(Mr. Blagonravov, COSPAR)

In conclusion, we would like to express our gratitude to the Secretariat of the United Nations for its collaboration in the work of COSPAR, and, personally, I would like to express my gratitude to Mr. Abdel-Gharni for the very useful help which he gave to COSPAR, especially during the last session.

Mr. COIGNEY (World Health Organization): Yesterday, the Committee heard a very interesting statement by the representative of the Soviet Union, Academician Blagonravov, and his suggestions in connexion with the work programme of the Technical Sub-Committee on the subject of bio-astronautics. Similarly, the representative of Italy this morning said that he felt that bio-astronautics could usefully be studied by the Technical Sub-Committee.

The Committee will recall that space medicine was one of the possible areas for international co-operation in outer space mentioned in the exchange of letters between President Kennedy and Chairman Khrushchev. At the session of this Committee held in March 1962 and at the seventeenth session of the General Assembly, the question of health and inherent biological problems was also raised by several delegations.

In view of the further interest expressed in this area, it may be useful to indicate some of the implications of space flight in which WHO is interested and which could find a wider application in scientific research in medicine. Such interest would seem to fall broadly in the field of physiology of man during space flight and some of the means and methods for recording various measurements which may subsequently be applied to clinical and epidemiological research for the prevention and cure of diseases. Broad examples can be given as follows:

Safety and health of man in space both during flight and landing. Knowledge of the methods of selecting the most suitable men for flight, of the criteria used, and of the methods of training these men for flight in space can be used as a guide and applied to men in aviation in general, especially when supersonic flights for commercial use are being developed.

Data on the physiology of a man in space under conditions of "stress" of an unusual kind, such as in a state of motion at tremendous velocity and of weightlessness, may add new information to our present knowledge in the regulation of circulatory and central nervous system functions. This knowledge

(Mr. Coigney, WHO)

is relevant to research in the etiology and pathogenesis of cardiovascular diseases, particularly arterial hypertension. In this connexion, the methodology of recording and analysing various measurements, such as ventilatory functions of the lungs, pulse rate, blood pressure, and the like, could be of great interest for application to cardio-vascular disease research of men in ordinary life. Some of the data on biochemical investigations may similarly be of interest.

The effects of cosmic radiation on man in space may be relevant to the health protection of man against ionizing radiation in general.

Knowledge of systems of environmental control in the space craft may prove of interest in their applicability to environmental health control on earth or in ordinary aviation.

Methodology of processing and analysing data gained from space flights could be of general applicability to clinical research, such as the scanning of a long series of electrocardiogram records. The availability of this information is as yet largely unexplored and there appear to be vast potentialities for their utilization and adaptation to current medical research.

Further from WHO's point of view there exists the problem associated with the peaceful uses of outer space, namely the possibility of contamination of the earth by chemical or biological material introduced by returning space vehicles.

The health problems of peaceful uses of outer space at present concern primarily a very limited number of selected individuals and, of course, are being studied mainly under the aegis of national authorities responsible for outer space flights.

On behalf of my Director-General, I wish to assure the members of the Committee that WHO is ready to collaborate with the Committee in the limits of its possibilities. It is within the realm of immediate action to promote the collection and dissemination of information on the health aspects of outer space and of the by-products of space research which may prove applicable to medical research in general. If found necessary, WHO could also sponsor or participate with other agencies in sponsoring meetings to promote international discussion of selected subjects in the field of health in outer space.