

The CHAIRMAN: So far we have heard seven statements in the general debate. For this afternoon four delegations have indicated their intention to speak, three definitely and one tentatively, and since, for the concluding part of the debate tomorrow morning, there are eleven names on the list I would appeal to delegations that are scheduled to speak then to consider whether they could speak this afternoon instead. In order to make full use of the time available to us this afternoon, I propose that, when members have made their statements, we should, with the Committee's consent, hear statements from the observing agencies, ESRO and COSPAR.

In accordance with the decision taken yesterday, the list of speakers was closed at noon today when, as I have indicated, it included a total of twenty-two delegations, but if other delegations still are weighing the possibility of taking part perhaps the Secretary could stop the clock at that hour and allow them, with the indulgence of the Committee, a few more minutes in which to submit their names.

The meeting rose at 12.20 p.m.



UNITED NATIONS
GENERAL
ASSEMBLY



A/AC.105/PV.133

2 July 1974

ENGLISH

COMMITTEE ON THE PEACEFUL USES OF OUTER SPACE

VERBATIM RECORD OF THE ONE HUNDRED AND THIRTY-THIRD MEETING

Held at Headquarters, New York,
on Tuesday, 2 July 1974, at 3 p.m.

Chairman:

Mr. JANKOWITSCH

(Austria)

- General debate (continued)

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

GENERAL DEBATE (continued)

Mr. von KYAW (Federal Republic of Germany): This is the first time since the Federal Republic of Germany became a Member of the United Nations that we are participating in a meeting of the Committee on the Peaceful Uses of Outer Space. The delegation of the Federal Republic of Germany wishes to emphasize that we attach great political as well as scientific and technological importance to our co-operation in this Committee.

We would like to take this opportunity to congratulate the Chairmen and the members of the Legal Sub-Committee and the Scientific and Technical Sub-Committee, as well as of the Working Groups on Direct Broadcast Satellites and Remote Sensing on the results of their work which have been submitted to this Committee.

In particular, Mr. Chairman, we extend our thanks to you for the kind words of welcome addressed to the new members of this Committee.

The Federal Republic of Germany attaches great importance to the peaceful uses of outer space and to international co-operation in this field. This is going to be reflected by four outstanding events in the coming months: the establishment of the new European Space Agency; European co-operation on the Space Laboratory Programme as a contribution to the new American reusable space transportation system; the launching of the German-American solar exploration spacecraft Helios in the fall of this year; and, again at the end of this year, the launching of the experimental telecommunication satellite Symphonie, which has been jointly developed by the Federal Republic of Germany and France.

Whereas in the past the emphasis of space activities in the Federal Republic of Germany has been more on the scientific aspects, it is now turning more and more towards the field of space applications.

With regard to the report submitted to us by the Scientific and Technical Sub-Committee (A/AC.105/131), we welcome the fact that this report contains proposals for the practical application of space technology to the benefit of all countries, and in particular of the developing countries. The delegation of the Federal Republic of Germany supports the idea of the questionnaire regarding the needs of developing countries for assistance in the field of practical application of space technology. My delegation co-operates in the elaboration of this questionnaire.

(Mr. von Kyaw, Federal Republic of Germany)

We also note with satisfaction that, in accordance with resolution 3182 (XXVIII), the Scientific and Technical Sub-Committee has devoted so much of its attention to the problems of the use of remote sensing satellites in order to meet the needs of developing countries. In our opinion, this problem will have to be given priority. The advantages and benefits of this new technology are obvious, especially for the developing countries, and they are not limited to the field of earth resources. The Federal Republic of Germany will therefore support the proposal by the Scientific and Technical Sub-Committee to carry out pertinent studies. In the opinion of this delegation, however, a discussion of the legal, financial and organizational implications, including the future role of the United Nations in this field, cannot be very useful without prior and sufficiently detailed knowledge of all technical aspects and future methods of remote sensing.

As regards the legal problems of remote sensing, as they are examined in the reports submitted by the Working Group and the Scientific and Technical Sub-Committee, the delegation of the Federal Republic of Germany reiterates its position as stated in the Legal Sub-Committee. My delegation considers it appropriate to make an additional comment. Resolution 3182 (XXVIII) recommends to the Legal Sub-Committee to study only the legal implications of remote sensing restricted to earth resources, whilst it proposes that the Scientific and Technical Sub-Committee should review the whole spectrum of technical possibilities of remote sensing. We are of the opinion that in all bodies dealing with remote sensing all aspects of the different forms of remote sensing should be examined.

We do not think that there would be much purpose in restricting the mandate of the Legal Sub-Committee to the legal implications of remote sensing with regard to earth resources only. The fields of environmental pollution, meteorology, agronomy and others are equally important, also from the point of view of developing countries. In our opinion, therefore, the first step should be to study in depth the technical, organizational and financial implications and characteristics of remote sensing with regard to the main types of its application.

(Mr. von Kyaw, Federal Republic of Germany)

Having thus obtained a clearer picture, we may move on to discuss the legal implications on a broad basis. This seems to us to be all the more appropriate as the discussions up to now have shown that the legal and organizational solutions we are seeking should vary quite considerably from one form of application to the other. It is also for this reason that the Federal Republic of Germany agrees with the recommendation of the Scientific and Technical Sub-Committee that a "possible United Nations conference on space applications" should be included in the agenda of its next session. For this purpose the Secretariat may be requested to submit a detailed paper with proposals on the subject.

An important point in the discussion of the reports submitted to us will be the future organization of the work of the sub-bodies. My delegation is not yet convinced that in addition to the two Sub-Committees there exists at present a need for further meetings of the Working Groups. It would be advisable to consider whether we should not try to rationalize our work by having the Working Groups not meet in 1975. The technical and legal problems these Working Groups covered could be dealt with for the time being by the two Sub-Committees. This would not rule out the possibility of the Working Groups resuming their work at a later date. In that case, however, the Working Groups as interdisciplinary bodies should report either directly to the Committee or to both of the Sub-Committees. As we see it, this could also apply to the Working Group on Direct Broadcast Satellites, whose report will be most helpful for our discussions since it analyses the different positions of Member States, the continuing changes in this new field of technology and the complexities of the problems involved. Another reason why this Working Group's activities could be discontinued in 1975 lies in the fact that the technical problems of direct broadcasting are being thoroughly studied within the framework of ITU and may be brought to a solution there, so that in the future the legal and political questions we are facing may possibly appear in a new light.

We have noted with interest the reports submitted by the Legal Sub-Committee. We welcome in particular the decision on the registration convention. We accept this draft as a logical consequence of the space liability convention and hope that it will be adopted by the General Assembly. My Government

(Mr. von Kyaw, Federal Republic of Germany)

has also followed closely the discussions on the moon treaty. We agree that the Legal Sub-Committee should continue its work on the draft with priority.

The general debate on the legal problems of remote sensing of earth resources which took place for the first time in the Legal Sub-Committee is also of special significance. As we see it, the outcome of the Sub-Committee's meeting was that all three remaining items -- that is, the Treaty Relating to the Moon, direct broadcasting and remote sensing -- shall be treated as equally important. In view of the different political, legal and scientific-technological as well as organizational criteria applicable to these three items and their implications on our work, varying degrees of progress will become apparent in the course of our future discussions as a consequence of the particular complexities of each item. For this reason, any prior decision by this Committee or by the General Assembly on which item should be given this or that particular degree of priority would only create unnecessary problems without helping us to achieve progress.

The delegation of the Federal Republic of Germany realizes that it will not always be possible in the future to maintain the strict division of scientific and technical questions, on the one hand, and legal problems, on the other, especially in connexion with direct broadcasting and remote sensing. The interrelationship between technical, political and legal questions cannot be eliminated. We should therefore promote even closer co-operation between the two Sub-Committees. Both Sub-Committees should make more use of the possibility of submitting specific questions to the other body.

We consider it a great privilege to co-operate in this important Committee with the Chairman and the other members, and we do hope to be able to make a valid contribution to the efforts of the United Nations in promoting the peaceful uses of outer space.

Mr. OHTAKA (Japan): Mr. Chairman, since this is the first intervention by my delegation at the current session of the Committee on the Peaceful Uses of Outer Space, I should like to say at the outset how happy we are to see you once again in the chair, guiding us so ably in our discharge of the mandate entrusted to this Committee. My delegation deeply appreciates the valuable initiative which you have taken in submitting to us well in advance a highly realistic proposal on the programme of work for the current session. The proposal adopted yesterday without amendment is highly satisfactory to my delegation. For my part, it suffices for me to say that my delegation will spare no effort in extending its fullest co-operation to you in the discharge of your grave responsibilities.

We recall with great pleasure that a number of the new members of the Committee made important contributions during the sessions of its subsidiary bodies held earlier this year in New York and in Geneva. We are indeed looking forward to the still greater contributions to be expected from these new members during the current session.

Turning to the substance of our work, I wish to outline very briefly the position of my delegation on some of the important points which are to be discussed at the current session of the Committee.

My delegation is deeply satisfied with the truly substantial progress achieved by the subsidiary bodies of the Committee during the first half of this year. We therefore recommend that the Committee approve the reports of the Legal Sub-Committee, the Scientific and Technical Sub-Committee, and the Working Group on Direct Broadcast Satellites in their entirety.

It is with particular satisfaction that my delegation recalls the recent completion by the Legal Sub-Committee of the draft Registration Convention after many years of difficult negotiations. The completion of this draft Convention marks another milestone in the progressive development of outer space law. For this great achievement my delegation wishes to pay a special tribute to Mr. Turk of Austria, who worked so untiringly and unselfishly as the Chairman of Working Group II at the last session of the Legal Sub-Committee. We sincerely hope that the Committee will approve unanimously the draft Registration Convention at its current session and commend it to the twenty-ninth session of the General Assembly for adoption.

(Mr. Ohtaka, Japan)

For our part, I am pleased to say that the Government of Japan, in view of the completion of the draft Registration Convention, will study seriously the possibility of becoming a party to it as well as to the Liability and the Rescue Agreements, having due regard for the possible legislative measures which might be required for their implementation.

As is stated in paragraphs 18, 32 and 36 of the report of the Legal Sub-Committee (A/AC.105/133), the Sub-Committee was of the view that at its next session it should continue consideration of the draft moon treaty, direct broadcast by satellites and remote sensing by satellites as priority items. One might wish to go a step further at the current session of the Committee and attempt to establish clearly the relative priority of these items. However, we entertain doubt about the wisdom of such an attempt because, in our view, these three items are equally entitled to receive urgent attention of the Legal Sub-Committee.

As I stated at the last session of the Scientific and Technical Sub-Committee, my delegation considers that the Working Group on Remote Sensing of the Earth by Satellites has now fully discharged the mandate entrusted to it by that Sub-Committee. We see little reason to reconvene the Working Group under the same mandate, since future work in this field might well be pursued, as appropriate, either by the Legal Sub-Committee or by the Scientific and Technical Sub-Committee. As for the Working Group on Direct Broadcast Satellites, however, my delegations believes in the merit of the multidisciplinary approach, which is characteristic of this Working Group, particularly in view of additional studies of various aspects which might be required as a result of experience to be acquired by member States through ATS-6 and other programmes in the field of direct broadcasting by satellites. We therefore consider that the Committee should maintain sufficient flexibility regarding the future of that Working Group, so as not to foreclose the possibility of reconvening it at a later stage.

Lastly, I wish to touch very briefly upon the question of convening a United Nations Conference on Space Applications. It may be recalled that my delegation expressed its support in principle for the idea of holding such a conference at the last session of the Scientific and Technical Sub-Committee.

(Mr. Ohtaka, Japan)

We did so because we see merit in holding such a conference towards the end of this decade, by which time space technology, which is at present in an experimental stage, will have become fully operational in a number of fields. Although we are fully aware that nothing has been decided as to the substance of that conference, we will continue to explore, in a positive manner, the possibility of holding such a conference, including the possibility of hosting it in Japan, should that be the wish of the international community.

The CHAIRMAN: I thank the representative of Japan for his kind words addressed to the Chair.

Mr. MIGLIUOLO (Italy): Mr. Chairman, my delegation too feels deeply indebted to you for the guidance given to the proceedings of this Committee in your introductory statement -- a statement which once more confirms your diplomatic skills and your expertise in conducting the affairs of this Committee. You can rest assured of the fullest co-operation of my delegation in the discharge of your responsibilities.

The annual meeting of this Committee has always been an occasion for taking stock of the progress achieved in the exploration of outer space, as well as for assessing the opportunities that space has to offer to mankind as a whole. It is in such a spirit that, on behalf of the Italian delegation, I will address a few remarks to you within the limits of this general debate, and having in mind the wide array of subjects which have been brought this year to our attention.

As is customary, allow me to begin by extending the whole-hearted congratulations of the Italian Government to those member States which have achieved further, far-reaching results in the exploration of outer space during the year elapsed since our last meeting. I refer in particular to the American mission of the Mariner 10 spacecraft, which has brought us the first close view of the planet Mercury after having flown by Venus; to the

(Mr. Migliuolo, Italy)

missions to Jupiter by the space ships Pioneer 10 and 11; and to the great success of the Spacelab missions, as well as of the ERTS and Nimbus missions, which, in addition to exploring the outer reaches of space, have enhanced in a significant way the number of practical applications to be derived from space exploration for the benefit of the people on earth.

The Soviet Union has also posted in the last 12 months an impressive number of space successes. We wish to congratulate the Soviet delegation on the Intercosmos programme, on the activities of the Lunokhod vehicles on the Lunar surface; on the Soviet Union's exploration of the planet Mars and on its systematic development of manned space flights through the Soyuz and Salyut programmes.

We wish, further, to compliment our Canadian colleagues on the success of their Anik communications satellite; the French delegation for the Oriol satellite and other space achievements; and the Japanese delegation for the full line of space activities its Government has performed, from rockets to satellite launchings.

(Mr. Migliuolo, Italy)

My delegation is also very pleased at the increasing number of joint ventures in space which have been announced during these last months, confirming the trend, always advocated by my delegation, towards international co-operation in the practical conduct of space activities. Of course, the most interesting of such joint ventures is the Apollo-Soyuz programme, carried out jointly by the two space super-Powers, a programme which is in itself a spectacular example of how space can bring together countries and peoples of different political, social and economic systems in a common exploration of the universe.

Turning now briefly to what Italy itself has accomplished during this past year, I can state that although we cannot, of course, show results of such magnitude as the ones I have mentioned so far, the Italian space programme has made some positive achievements. In co-operation with the American National Aeronautics and Space Administration, as well as with the Republic of Kenya, we have successfully launched two more satellites from the San Marco equatorial range. The last one, the San Marco C, orbited this spring, is now collecting important information and data in the zone of space immediately around our planet, in a zone where most of the future applications satellites and space laboratories will operate, thus supplying the designers of such future space vehicles with data and information vitally needed for the success of those future missions. We are now in the preparation phase for the launching of a British scientific satellite from our range, in a four-way co-operative effort by the United Kingdom, the Republic of Kenya, the United States NASA and Italy.

Furthermore, we are continuing the development of the Sirius application programme aimed at orbiting a satellite which should provide a workbench for experiments in Nike-frequency telecommunications in the span from 12 to 18 Ghz.

In the field of space theoretical research, our scientists have prepared payloads which have been installed on American satellites, as well as on satellites of the European Space Research Organization (ESRO) and have performed their tasks as expected.

(Mr. Migliuolo, Italy)

The area of space applications continues to be the subject of the main efforts of the Italian space programme. The results are evident in the expansion of the space telecommunications activities carried out by our Intelsat signatory, the Telespazio Company at its multi-antennas ground station at Fiumicino. It will proceed with the construction of a ground receiving station for servicing a regional centre for collecting and storing Earth's survey data transmitted by the American ERTS-type satellites.

Upon agreement with NASA, our station will make available the data collected in the whole area covered by its antenna to all the Member States which request them, and will, of course, abide by the rules on this subject which the United Nations approves or recommends through the deliberations of this Committee and its subsidiary organs.

Our experts hope that the station will be able to start operations, at least in a limited way, next summer. Contacts, therefore, have already been established with several countries interested in receiving the ERTS data for their study and planning purposes, as well as with FAO which has expressed its interest in using such space-collected data as one of the useful ways to fulfil its mandate.

Finally, Italy is one of the major partners in the far-reaching project of European-American co-operation known under the name of Spacelab, which is entering now into its development phase. We believe that such co-operation, which will ultimately bring into being an advanced space transportation system will be the cornerstone of many practical space applications of the future.

By reducing the cost of orbital payloads, such a transportation system could open the way to an unprecedented drive aimed at the utilization of the special environmental characteristics of outer space for specific industrial and technological applications of economic and social significance. And while my delegation is proud of the role that Italy is playing in such an endeavour, it also feels that the subject of space transportation should be studied by this Committee in the near future in order to examine its implications for the welfare of all mankind.

(Mr. Migliuolo, Italy)

After those comments of a general nature, I should like now to state the ideas of my delegation on various topics brought to our attention.

Italy has participated in the work of all the subsidiary bodies of this Committee and has the honour of chairing the Working Group on Remote Sensing of the Earth by Satellites. At this point, therefore, I prefer not to dwell on the topics covered in the reports of those subsidiary bodies, reports which we helped to draft and the contents of which, therefore, we support in principle.

Mr. Chairman, in line with your introductory statement in which you recalled that this Committee must be policy-oriented, I shall instead draw the attention of my colleagues to two topics.

The first one is the question of satellite positioning in geostationary orbit. In 1966 my delegation presented to this Committee a document in which, inter alia, the following was stated:

"At the present time the geostationary orbit is used mainly for point-to-point communication satellites in limited numbers, and the availability of positions compatible with the freedom of interference requirement does not pose any operational or jurisdictional problems.

"But a combination of a substantial increase in the number of point-to-point communications satellites in geostationary orbit as anticipated by the advanced planning of several domestic and regional systems, in addition to the satellites of the INTELSAT and inter-Sputnik systems and of the projected satellites for specialized systems such as broadcasting, meteorology, navigation, and so forth, will undoubtedly, sooner or later, require some ruling, either on the use of the frequencies or on the allocation of positions, or on both, in order to make the optimal use of this important natural resource."

(Mr. Migliuolo, Italy)

Concurrently with that statement, my delegation requested and obtained agreement that the question of the utilization of the geostationary orbit be kept under consideration for discussion in future meetings of this Committee. We did that in 1966, and the future is now. To confirm that fact, I wish to call the attention of my colleagues to a ruling made a few weeks ago by the Federal Communications Commission (FCC) of the United States of America in regard to a request by Western Union International to occupy with its Westar II satellite the geostationary position at 119° West on the geostationary orbit.

The ECC, as I have read in a number of newspapers, acting upon the opposition to such requests of other American Corporations, has ruled to deny Western Union permission to occupy such a position and has instead assigned Western Union the position 90° West.

Such a decision has raised many comments in various circles. I could dwell on comments relating to the possibility of deciding on locations in the geostationary orbit, but for the moment I shall limit myself to noting the remarks made publicly last week by Mr. Robert W. Sarnoff, one of the pioneers of space telecommunications. He pointed out first of all that there is no room for an unlimited number of satellites in orbit because "space might seem unlimited but desirable locations are not". I quote his words as reported by the press. Furthermore, Mr. Sarnoff added that geostationary satellites must be spaced 100 miles apart to avoid colliding and that satellites operating in the same frequency range -- as they do now -- must be kept from 1,200 to 2,000 miles apart to prevent mutual interference. This would provide room for only 8-13 satellites in the geostationary segment covering North America to Hawaii, he said, and such number might be increased to perhaps 20-25 satellites with the use of higher frequencies whenever available. And, as I stated earlier, my country is engaged in a programme aimed at exploring the availability of those higher frequencies.

I have quoted these facts -- and I ask my United States colleagues' forgiveness for having mentioned a matter pertaining to their domestic affairs -- with no intention of criticism whatsoever, but only to provide this Committee with an example of what could happen all over the world when different countries might be competing for privileged positions along the geostationary orbit, without any

(Mr. Migliuolo, Italy)

rule or criteria being internationally agreed upon in order to avoid unnecessary disputes -- except, of course, the somehow vague formulation of article 2 of the Outer Space Treaty.

It is the opinion of my delegation that the question is urgent and important enough to be the subject of immediate and thorough attention by this Committee, as well as by the ITU, with the aim of formulating effective recommendations on the subject to the General Assembly of the United Nations in accordance with article 3 of the Outer Space Treaty. We think we are dealing with a limited natural resource, and we think that we are confronted with a de facto monopolistic situation in so far as only one space Power has fully mastered the technology of orbiting satellites in a synchronous position, while a second space Power has probably acquired the same capacity. In our view, the international community should take some action lest the positioning of satellites in geostationary orbits becomes the exclusive privilege of a very few States.

The second topic I should like to discuss in a general preliminary way is the proposed Second United Nations Space Conference to mark the end of the second decade of space activities.

I have noted that in paragraph 31 of the report of the Scientific and Technical Sub-Committee it is suggested that the Sub-Committee take into consideration such a matter at its next session, in the spring of 1975.

My delegation took an active part in the preparation of the First United Nations Space Conference. That Conference was a great success, mainly as a result of the personal dedication of your illustrious predecessor, Mr. Chairman, our present Secretary-General, Mr. Waldheim, as well as of the skilful technical and scientific contribution of our unforgettable great Indian colleague, Mr. Vikram Sarabhai, in co-operation with Mr. Abdel-Ghani.

In this respect, as an exercise in recollection, I should like to point out that the proposal for such a Conference was first contained in General Assembly resolution 1472 (XIV), adopted in 1959. That proposal came to life only during the 1964 session of this Committee, when my delegation proposed the establishment of a working group with a mandate to:

First, study ways and means of presenting to the developing countries of the world, in the most effective fashion, a complete picture of the scientific,

(Mr. Migliuolo, Italy)

technological and practical achievements brought about by the first ten years of the Space Age and of the benefits that could be derived therefrom for all mankind;

Second, consider among various ideas, the proposal for an international conference, or that for a commemorative meeting of this Committee, or any other proposal that might be advanced;

Third, discuss with the specialized agencies, COSPAR and other competent bodies, aspects related to the possible overlapping of such an event with other scientific and technical space conferences scheduled for the same period.

The Italian proposal was then accepted in general terms at the next session of the Committee in October 1965, and on 18 January 1966 the Working Group of the Whole met for the first time to consider the question of the conference and continued its activity throughout 1967 under the chairmanship of Ambassador Waldheim.

The purpose of this recollection of events is to emphasize that a proposal discussed in 1964 resulted in the holding of the Conference in 1968. We are now in 1974, and if we are considering a conference in 1978, my delegation, without entering into the merits of the proposal at this stage, wishes to point out that there would be no time for leisurely consideration by the Scientific and Technical Sub-Committee next year but that rather some sort of general debate should be conducted on this subject at the present session of this Committee.

My statement being of a general nature, my delegation reserves the right to deal later on with the specific issues covered by the reports submitted by the subsidiary bodies of this Committee. I wish only to extend the congratulations of my delegation to their chairmen and members for the good work carried out in the last year. May I, however, be permitted to offer some comments of an organizational nature related to the future work of this Committee and its subsidiary organs.

I have heard some representatives state that we must avoid the proliferation of working groups and the like in order to keep the forces of United Nations space policy in this Committee and its two Sub-Committees and to avoid additional expenses. I fully agree with such a concept if the objective word "unnecessary" is added -- namely, if we talk of unnecessary proliferation as well as of unnecessary expenses.

(Mr. Migliuolo, Italy)

However, I believe that in the past, whenever we have decided to set up a new working group, this Committee has taken its decision out of necessity, and the soundness of its decision has always been ratified by the General Assembly. Indeed, working groups have always been established in the past only when either our Committee or its two Sub-Committees have been confronted with new topics --- such as navigation satellites, broadcasting satellites, remote sensing --- of such a complex and interdisciplinary nature as to require the painstaking and detailed work of experts for a period of time much more extended than that available during normal sessions of our Committee or its two Sub-Committees. The working groups have always been organized with the understanding that once the topic assigned to them had been fully assessed and clarified, their activity would be discontinued and the related topic would be referred back to the two Sub-Committees in their respective competence.

In this spirit the Navigation Working Group was disbanded after a brief life, and we are now called upon to decide the fate of the Remote Sensing and the Broadcasting Working Groups.

In relation to the Working Group on Remote Sensing my delegation, which has chaired it, has detected a feeling amongst some members of this Committee that its work should be considered accomplished and that the Legal Sub-Committee should take over the task of examining the legal aspects of remote sensing, while the Scientific and Technical Sub-Committee ought to handle the organizational and technical aspects, with special regard to the assessment of the exhaustive documentation which the Secretary-General has been asked to provide.

This is when my delegation begins to have some misgivings, inasmuch as my delegation doubts very much that in the two weeks scheduled for the next session of the Scientific and Technical Sub-Committee that body could properly assess the complex problems of the organizational nature of remote sensing, evaluate the documentation prepared by the Secretariat and carry on its additional work of discussing the space applications programmes, the results of the questionnaire and the other topics on its agenda.

It seems to us that the alternative suggested by the representative of Australia is the only logical one if we wish the work to be done: either we reconvene the Working Group with an appropriate mandate or we extend the

(Mr. Migliuolo, Italy)

duration of the session of the Scientific and Technical Sub-Committee to three or, even better, four weeks.

As far as the Working Group on Broadcasting is concerned, my delegation has a great appreciation of the work performed by it under the brilliant leadership of Ambassador Rydbeck and agrees with the general feeling it has detected so far in this Committee, that is, that it should be given a chance to complete its work for the benefit of us all.

In closing my remarks, I wish to associate myself with those colleagues who have expressed their gratitude for Mr. Abdel-Ghani's accomplishments and their regrets at his departure. Last April, at the session of the Scientific and Technical Sub-Committee, we already voiced our feelings about Mr. Abdel-Ghani's tremendous contribution to the United Nations space programmes. We reiterate our feelings now, and express all best wishes for happiness and success in his new responsibilities.

The CHAIRMAN: Since no other member of the Committee wishes to speak now, I shall call on the representative of the European Space Research Organisation to make a statement.

Mr. LAFFERRANDERIE (European Space Research Organisation (ESRO))
(interpretation from French): First, I should like to say how pleased I am to be allowed to speak in this Committee and to thank you for giving me this opportunity to give the Committee a brief idea of the nature of the European Space Agency, which will replace the two existing European space agencies -- ESRO and ELDO.

The origin of the European Space Agency is to be found in a decision adopted by the Ministers of the European Space Conference in December 1972 and July 1973 to establish, on the basis of the existing European space organizations, a new, single space agency. That idea of a merger between ESRO and ELDO was not at all new but had not until then taken concrete form. However, the decision of the European Ministers should be seen as going beyond a mere merger, because it is an

(Mr. Lafferranderie, ESRO)

indication of a determination to give a new direction to European space activities. It was on the basis of that determination that the competent bodies of the European Space Conference decided to prepare a draft convention creating a European Space Agency that would take into account the ideas on the subject expressed during the revision of ESRO's convention.

The de facto creation of the Agency had been expected to take place by 1 April 1974, but this has not been the case. The draft convention has by and large been completed, but a few matters still have to be settled and, therefore, it has not yet been possible for the conference of plenipotentiaries which must adopt the convention -- and which had been scheduled for December 1973 -- to take place. But it is now expected that the conference of plenipotentiaries will take place in the very near future.

(Mr. Lafferranderie, ESRO)

I should like now to speak very briefly about the nature of this European Space Agency. First and foremost, it will be the sole European agency, taking over from ESRO and ELDO. It will represent continuity of effort, but will also expand what has been done in the past. It will see to it that the space programmes of member States are integrated and that national space policies are brought into line with each other. In addition, the Agency will be in charge of a whole range of programmes, from scientific satellites to applications satellites and the means of space launchings and transport. I might note in passing that these programmes will be established taking into account the needs of the users and also the specifications laid down by international bodies.

These various features of the European Space Agency can be seen from a brief study of its mission, its structure and its functioning. The missions of the European Space Agency will then represent continuity with the past and an expansion vis-à-vis what is going on today in the area of European space activities. I might remind the Committee that ESRO is a space organization which was originally designed to carry out a programme of scientific research using satellites or sounding rockets. ESRO was later given the task of carrying out programmes using experimental applications satellites for the States concerned. I would also recall that ELDO was established to develop launching devices, but the member States of ELDO have now decided to stop these launching programmes. That does not mean, however, that some European States are any less determined to develop heavy launchers. That determination will find expression in another framework.

The following main ideas therefore led to the decision to establish the Agency, and they are found in the purposes for which it was created. First, the Agency is to prepare and carry out a joint European space programme. It also has the task of co-ordinating that programme and national programmes, of integrating national programmes progressively in the joint space programme, particularly with regard to the development of applications satellites. Secondly, the Agency has been instructed to establish a long-term policy to bring together the various policies of States towards other organizations and national and international agencies. That represents an expansion of the mission of the Agency.

(Mr. Lafferranderie, ESRO)

Thirdly, I would add that the Agency has the task of formulating and applying an industrial policy, and the drafters of the convention have been very careful to formulate provisions designed to promote a European industrial policy the purpose of which is to ensure the competitiveness of European industry.

Two other features distinguish the Space Agency and show that there is a desire to be flexible in the execution of programmes. First of all, along with the joint space programme in which all States members of the Agency must participate and which contains in particular a scientific programme and basic activities, member States have the possibility of participating in programmes of their choice in accordance with a level of financial contribution that is in proportion to their interest in a given programme.

The second characteristic is that the Agency is the executing agency for programmes. That means that it may itself be in charge of executing programmes and be entrusted with a whole range of the responsibilities relating thereto, or that, through the Agency, the technical management of a given programme may be assigned to a member State or a national institution of a member State, the Agency in that case ensuring control and supervision on behalf of States participating in the programme.

The draft convention therefore shows that there is a determination to strengthen relations between the Agency and the national institutions of member States in order to ensure greater effectiveness and profitability for Europe's global effort, greater flexibility in the conduct of programmes, greater interest in applications programmes and a concern to strengthen the industrial competitiveness of Europe. The Agency will provide a permanent forum within which national policies may be co-ordinated and brought into line with each other. It will also be a tool to define and carry out a European space programme.

I should like now to turn to an organic description of the European Space Agency as established in the draft convention. There is nothing particularly new about it. The draft convention sets up a classic international organization with a juridical personality. The convention is open to signature by States members of the European Space Conference. However, the entry into force of the convention is contingent upon signature and ratification by the ten States members of ESRO. Once the convention enters into force, any State may adhere to it.

(Mr. Lafferranderie, ESRO)

The continuity which exists between the present European space agencies and the new Agency emerges also from the fact that upon the entry into force of the Convention of the Agency the Conventions of ESRO and ELDO will come to an end and the Agency will assume the rights and obligations of those two organizations.

From the point of view of legislative and executive organs the Agency's structure is of the classic variety. The decision-making bodies of the Agency are the Council, which is the principal organ, made up of representatives of all member States and called upon to take the most important decisions relating to the functioning of the Agency, and the Programme Councils. Each optional programme -- that is to say, each programme in which Member States are not obliged to participate -- has a Programme Council, made up of representatives of Member States participating in that programme. The Programme Council is the organ authorized to take decisions relating to that programme.

It will also be noted that the Agency's Council may meet at the ministerial level -- which meets the desire to have within the Agency a forum within which to define European space policies.

At the executive level, the Director-General of the Agency is the highest executive official, and represents it in all his acts. He may take the initiative in proposing programmes and in all measures relating to the carrying out of the Agency's mission.

I turn now to the functioning of the European Space Agency.

I have already said that all Member States will be obliged to participate in basic activities and in scientific programmes conducted by the Agency. This latter requirement will ensure the execution of programmes in which all Member States participate, unless they have formally declared that they are not interested and that they therefore do not intend to participate. Those optional programmes may relate to scientific experimental satellites, experimental applications satellites, launching and space transportation programmes, and so on -- in short, an extremely wide range of programmes in space research.

(Mr. Lafferranderie, ESRO)

The Agency may also be authorized to assume tasks in the area of operational applications satellites at the request of the bodies concerned. I have also already indicated that it plays a role in the process of internationalizing the civil space programmes of Member States. In the execution of such programmes the Agency gives preference, in so far as possible, to the industries of Member States. In carrying out all these activities, the Agency will, of course, have resources at its disposal.

As regards obligatory activities and the joint scientific programme, the Council will decide on a level of resources to be made available to the Agency for the coming five-year period -- a level of resources which will be reviewed at the end of the third year of that five-year period, at which time the Council will establish another level of resources for another five-year period. While this system may, a priori, seem a bit complicated, the overlapping of levels of resources makes it possible for the Agency permanently to have a level of resources in line with the needs of its programmes.

States Members will participate in the financing of these programmes on the basis of a scale of assessments drawn up every three years on the basis of the average national income of each Member State, it being understood that no State will be required to contribute more than 25 per cent of the total amount.

As regards the optional programmes, participating States Members are given some flexibility: they may declare the amount of the first firm financial commitment for the initial phase of the programme which they propose to undertake. Moreover, participating States Members will have the choice of waiving the principle of establishing the scale of assessments set for the Joint Scientific Programme.

(Mr. Lafferranderie, ESRO)

Finally, the Convention strengthens the machinery of co-operation between the Agency and the institutions of Member States, which must strive to make the fullest use of their own facilities and to give them priority. For example, the Agency may turn, for the execution of certain parts of its programmes, to the national institutions of Member States. The Agency is also very open to the outside, in the sense that any State may accede to the Convention and become a member. The agency may also co-operate with other international organizations, and I would note in passing that ESRO already co-operates on a large scale with a number of international organizations such as ICAO, IMCO, WHO and ITU. There will also be very active co-operation with the Governments and institutions of non-Member States, as in the case of the present co-operation existing between ESRO and the United States, the Soviet Union, Canada, India and Japan.

The Convention also provides a State with the possibility of attaining associate member status, which gives that State access to the activities of the Agency. It is granted to any State as long as it participates in some part of the common activities.

Those, in brief, are the broad outlines of the draft Convention establishing the European Space Agency.

I also mentioned, when I began, the political determination of the ministers of the European Space Conference that the activities of the Agency actually begin at the earliest possible date. It was in that spirit that provisions concerning a transitional period, until the de jure entry into force of the Convention establishing the Space Agency, were drawn up.

(Mr. Lafferranderie, ESRO)

The convention must be first of all adopted by the plenipotentiary conference and will not enter into force until about two years after that, following the necessary ratifications. To allow the space agency to start work, use will be made of the legal framework of ESRO. It was on the basis of the ESRO Convention that, in accordance with arrangements between ESRO and certain of its States members, various satellite applications programmes and launching facilities were initiated. One might mention the aeronautical satellite programme (AEROSAT), which involved co-operation between the Federal transport authorities of the United States and the Canadian Government; the meteorological satellite programme (METEOSAT), which was in close co-operation with the World Meteorological Organization (WMO); the communications satellite programme, which also involved co-operation with Canada; the Spacelab programme -- which has been mentioned on a number of occasions by delegations -- in co-operation with NASA; the Ariane heavy launchers programme; and, lastly, the maritime satellites programme based on specifications drawn up by IMCO.

It is expected that, following the plenipotentiary conference which is to adopt the draft convention, ESRO will be known as the European Space Agency, and that the Councils of ESRO and ELDO will meet jointly, thus foreshadowing the Council of the European Space Agency. The Director-General will also carry out the functions of the Director-General of ESRO and of the Secretary-General of ELDO.

These and other arrangements are intended to ensure continuity of ongoing programmes and also to adumbrate the expansion of the mission which is to be entrusted to the agency in the terms of the convention.

In conclusion, I should like to emphasize that with the European Space Agency Europe will have an instrument that will enable it not only to enhance the effectiveness of its space effort as a whole, but also to make a still more significant contribution to the exploration and use of space in the interest of the whole international community.

The CHAIRMAN: I now call on the representative of COSPAR, Professor de Jager.

Mr. DE JAGER (Committee on Space Research) (COSPAR): Mr. Chairman, I am deeply obliged to you, Sir, and to the representatives for the privilege of addressing the meeting at this specific time. COSPAR has the status of a consulting body to this Committee and it has also nearly the same age. Yesterday, COSPAR terminated its seventeenth plenary meeting in Sao Paulo, Brazil, and I am happy to present here some considerations partly resulting from that meeting. I do so with great appreciation for the results obtained so far by the United Nations Committee on the Peaceful Uses of Outer Space.

We are intensively following the functioning of this Committee and we would indeed be most happy to give our help and advice where and if you deem it appropriate. Already for many years there has been close co-operation with various of the subsidiary bodies of this Committee. COSPAR took part in the meetings of the Task Force of the Working Group on Remote Sensing of the Earth by Satellites and in the meeting of the Working Group itself and in the meetings of the Scientific and Technical Sub-Committee.

I should not fail to mention that our friendly co-operation with and the efficient help always received from Mr. Abdel-Ghani, the Director of the Outer Space Affairs Division, has always been greatly appreciated, as has his attendance at most of our annual meetings, and it was with regret that the COSPAR community learned that he is leaving the United Nations after having served it so well during 25 years.

COSPAR is aiming principally at promoting international co-operation and in furthering scientific research by means of space vehicles. Classical fields of research are thus those realms of space that could for the first time be explored with rockets, satellites and space probes -- regions like the earth's immediate surroundings and the space between the planets.

Furthermore, space research has opened the opportunity to explore the universe via those radiations that cannot penetrate to the ground; and, finally, the ever-increasing power of the space vehicles has enabled man to land on other celestial bodies or to bring there refined measuring instruments or still more refined vehicles.

(Mr. de Jager, COSPAR)

It is sure that the echo of the miraculous discoveries made in that way during the last decades has not yet died away, and reports on more great discoveries are still regularly made, such as the recently reported, nearly incredible and fully mysterious, immensely intense bursts of penetrating gamma radiation reaching the earth from many directions out of the remote parts of space. Personally, I consider this recent discovery one of the greatest of the seventies, and we may surely expect further thrills of this kind in the years to come: and COSPAR then, as previously, may serve as a platform where such results are discussed at length and in depth.

On the other hand, the increased technological power has enabled man to conceive and to construct spacecraft that can be used as space laboratories. The last year, 1973, saw the launching of Skylab, where astronauts lived and worked for months in succession. It appeared even possible to repair the spacecraft when, moments after launching, it turned out not to be fully in order. Men were sent into space and performed their task, an achievement actually only scheduled for the 80s when the space shuttle and space-lab will do their work. We are in this connexion also looking forward to the Soyuz-Apollo programme next year. Laboratories of this kind can be used for physical and chemical scientific experiments in space, and it has been realized by the scientific community that this will be a new and exciting field of research that may help to make it possible to better understand the fundamental properties of matter.

In the next annual COSPAR meeting, which is going to take place in Bulgaria early in June 1975, a great deal of attention will be devoted to this new field; its possibilities may be outlined and explored.

Another -- in my opinion -- most important development, is that of the construction of refined spacecraft, with sharp picturing capabilities in various colours, enabling us to grasp the possibility of better understanding the earth itself, its solid surface, its geological wealth, its sea, its river currents, its atmosphere, its climatic changes, its weather, how it develops and how man, rightly or wrongly, influences his surroundings.

(Mr. de Jager, COSPAR)

The new field of remote sensing of the earth by spacecraft has become important for life on earth and at the same time fascinates the scientist because of the immense possibilities which we guess it has but which have in part still to be discovered, while their technical aspects have to be developed further.

In COSPAR's annual meeting, which I have just mentioned and which took place in recent weeks in and near Sao Paulo, Brazil, these aspects were discussed and investigated. First of all, a so-called workshop was organized at the National Brazilian Space Research Institute in Sao José dos Campos. In two weeks, about 30 carefully selected scientists from 18 developing countries took courses and gained technical experience in the art of interpreting pictures of the earth taken from spacecraft in light of different wavelengths. They applied these techniques to geology, geography, oceanography, agronomy, meteorology. In the second week, the course centred on practical problems of setting up in an imaginary developing country a station for the interpretation of space pictures. The difficulties that would be encountered in setting up that station were extensively dealt with. The workshop, concerning which the financial help of the United Nations Environmental Programme is gratefully acknowledged, was certainly very successful and will indeed help to spread knowledge of this new technique through many countries.

I personally found the last day of the workshop particularly impressive. During that day the participants were asked to say how space techniques could be used to solve some of the great problems of their countries, and the participants established an impressive list of such possibilities. Quite a few of the possibilities were new to us and to the teachers.

The workshop I have just described was followed by an open international scientific seminar on the same topic -- that is, space applications of direct interest to developing countries -- in which many more scientists participated.

Looking to the future, COSPAR certainly wishes to dedicate a great deal of its force and strength to setting out vigorously in this direction. Close co-operation already exists with the International Council of Scientific Union's Committee for Science and Technology in Developing Countries (COSTED). I have set up in COSPAR an Advisory Party on Problems of space research in developing countries under the chairmanship of Professor Jorge Sahade of Argentina,

(Mr. de Jager, COSPAR)

member of the Executive Board of ICSU and also representative of COSPAR in COSTED. This Advisory Party has members from Brazil, Iran, Pakistan, India and Indonesia, while the desire has been expressed to expand this Party by the inclusion of members from African countries. I am particularly happy to observe that three of the participants in the present meeting are members of the aforementioned Advisory Party.

In close co-operation with COSPAR's scientific working groups, a resolution was drafted by the Party. It was accepted yesterday at a plenary meeting of COSPAR. This resolution is, I think, important enough for me to read it in full. It states:

"COSPAR,

"Accepts the recommendations of the Advisory Party on matters pertaining to space research applications in developing countries, and decides to undertake, through the appropriate Working Group, the preparation of manuals and/or informative material on the possibilities of development through space technology, and decides to distribute this material to the appropriate bodies in the developing countries, including non-members of COSPAR.

"Further decides that in the future, workshops, seminars and meetings on space application for development will be organized primarily on a regional basis, and that the respective organizing committees will include two representatives of the appropriate working group and four representatives from developing countries, and, finally,

"Recommends that international training centres on different aspects of space technology applications be established on the basis of already existing facilities."

That important recommendation will certainly be directing many of the activities of COSPAR in the coming years. The experience of the first workshop and seminar on space research for development taught us that a higher degree of efficiency may be obtained by spreading out such activities to regional centres. I would ask representatives in this Committee to pay special attention to the last part of the recommendation regarding the establishment of international training

(Mr. de Jager, COSPAR)

centres on different aspects of space technology, since the realization of such training centres, albeit on the basis of already existing facilities, would not be possible without their help.

At the same time I am happy to report to representatives that COSPAR's Working Group on the application of space research to meteorology and earth surveying has just recommended that three manuals be published. That recommendation also was accepted yesterday. The titles of those volumes will be: How to Use the Diazo Process to Generate Colour Composites; How to Establish and Operate a Low Cost Image Receiving Station for ERTS; and How to Establish and Operate an Image Interpretation Laboratory. One thousand copies of each of those volumes will be printed. They will be distributed by COSPAR to interested institutes and scientists all over the world. I take this opportunity to draw the attention of this Committee to those forthcoming publications. COSPAR will be happy to receive information concerning addresses to which these publications could be sent, particularly in the case of those countries as yet having no scientific institution belonging to COSPAR and for which we lack addresses.

I have certainly not wished to be exhaustive in my description of our activities. Much more is going on in the world of space science. However, I thought that it might be of some use to mention a few highlights of COSPAR's recent life, highlights which have some relevance for the important work of this United Nations Committee on the Peaceful Uses of Outer Space and concerning which the organization I represent would gladly offer its help to the Committee.

The CHAIRMAN: Before I adjourn the meeting, I have a short announcement to make.

I have just received a letter from the Under-Secretary-General in charge of the Department of Conference Services. It contains the following information:

(The Chairman)

"The Department of Conference Services is faced this year with an unusually heavy programme of scheduled conferences and meetings. In addition, it must provide services to those bodies which do not have fixed dates for their meetings, but which, nevertheless, meet on a recurrent basis; examples of the latter category are the Security Council, the Special Committee on Apartheid, the Council for Namibia and others, including subsidiary bodies, as well as the regional groups.

"In the light of this situation, it is more than ever necessary that we make the fullest possible use of the conference servicing resources and it is to that end that I am writing.

"It would be most helpful if we could have -- especially for bodies which do not have set meeting dates -- the best possible advance notice for the need for a meeting so that we may have some flexibility in scheduling. Similarly, the earlier we receive notice that a scheduled meeting is not required, the better chance we have to use the resources thus freed.

"All meetings should begin promptly at the appointed time if there is not to be an unproductive assignment of the servicing resources; while the actual number of conference and general service staff required to be at the meeting room varies in relation to the actual services, a figure of 16-20 represents a usual complement. These staff members would be employed on other tasks were they not required to be present at the meeting. The possibility that a meeting will, exceptionally, have to be extended to any great length beyond the normal meeting hours should be notified to the Conference Officer well before the usual closing hour so that appropriate arrangements may be made.

"But more generally, I would simply ask that on a continuing basis, as plans are being made for a meeting or series of meetings, the conference servicing requirements that are implicit should be borne in mind. For our part, we will keep the secretaries of various bodies informed of any special concerns that we may have; and while within our capacity we will attempt to the best of our ability to accommodate all needs in a reasonable manner, there will in all probability be a number of occasions upon which we will have to rely on your assistance and understanding, and through you, that of the body over which you preside."

(The Chairman)

I thought that it might be useful to bring this letter to the attention of representatives in the light of the workload before us and the necessity to make full use of the available facilities here.

The meeting rose at 5.15 p.m.