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Chairman: Mr. C. W. A. SCHURMANN
(Netherlands).

AGENDA ITEM 28

International co-operation in the peaceful uses of outer space (continued):

- (a) Report of the Committee on the Peaceful Uses of Outer Space (A/5482, A/5549 and Add.1, A/C.1/L.332);
- (b) Report of the Economic and Social Council (chapter VII, section IV) (A/5503, A/C.1/L.332)

1. Mr. PORTER (Committee on Space Research of the International Council of Scientific Unions) said that COSPAR, as a purely scientific organization which operated under the rules of the International Council of Scientific Unions and attempted to ignore political considerations, could not possibly be considered competent in many of the subjects under study at the present meeting. Nevertheless, it was appropriate for scientists to have a voice in deliberations such as those of the First Committee, for scientific considerations had some influence on international relationships, and international agreements could profoundly affect, for better or worse, the opportunity to carry out scientific research. Some of COSPAR's current work that was of interest to the United Nations had been described by Mr. Blagonravov, a Vice-President of COSPAR, at the 22nd meeting of the Committee on the Peaceful Uses of Outer Space, held on 13 September 1963; he wished at the present time to discuss in somewhat more detail the work of the COSPAR Consultative Group on Potentially Harmful Effects of Space Experiments.

2. In March 1958, the International Council of Scientific Unions had set up an *ad hoc* Committee on Contamination by Extraterrestrial Exploration. That Committee had drawn attention to the danger that early exploration attempts or ill-considered experiments, such as the possible explosion of a nuclear device on the surface of the moon, might result in biological, chemical or radiological contamination of the lunar or planetary surfaces such as to complicate or render impossible further scientific studies of great importance. It had also called for the drafting of a specific code of conduct for lunar and planetary exploration. In 1959 the *ad hoc* Committee had been disbanded, and the International Council had assigned the study of the

problem to COSPAR. The Consultative Group had been created in the spring of 1962 to examine any proposed experiments or other space activities that might have potentially undesirable effects on other scientific activities and observations, to arrange for careful, objective, quantitative studies and to make available to members of the International Council and to Governments the facts and analyses they would need to make wise and proper decisions concerning the proposed experiments. The Chairman and six members of the Consultative Group were appointed by the President of COSPAR, and served as individuals rather than as representatives of any organization; they were broadly competent scientists from various countries whose fields of specialized knowledge included astronomy, radiation physics, atmospheric physics and chemistry, communications, meteorite penetration and microbiology. The Consultative Group had authority to consult with scientists of any country who were competent in any particular specialized areas or, if it desired, to convene *ad hoc* working groups of such scientists. Its findings were presented to the Executive Council of COSPAR and could be made available by that body to all COSPAR affiliates, to the Bureau and appropriate Unions of the International Council of Scientific Unions and to appropriate bodies of the United Nations or its specialized agencies.

3. The Consultative Group's present activities included the following: an examination of the possibility that scientifically undesirable contamination of the upper atmosphere might result from the large-scale release of rocket exhaust gases or other substances; a review of previous studies relating to the creation of an artificial belt of small orbiting dipole reflectors for communication purposes and to the results of the one experiment of that kind which had been carried out; and a continuing, rather detailed study of the possibilities of objectionable contamination of the moon and planets. The task of the Consultative Group was not to make recommendations on proposed activities but to provide detailed scientific predictions of their effects and of the extent to which they might be objectionable or harmful.

4. The members of COSPAR hoped that the work of its Consultative Group would contribute to harmonious international co-operation in space research and that both that and other activities of COSPAR would be useful to all Members of the United Nations. In particular, COSPAR was happy to be able to respond constructively to recent requests from the United Nations Secretariat for assistance in compiling the list of sources of bibliographies and abstracting services and with respect to the composition of the group of scientists the United Nations was sending to visit the sounding rocket launching site at Thumba, India.

5. Dr. COIGNEY (World Health Organization) said that the possibilities of international action in the field of space medicine had been referred to by

several delegations during the seventeenth session of the General Assembly. At present, the health problems involved in space flights affected only a small number of selected individuals, and were being studied by the States directly concerned. Action in the immediate future should be concentrated on the collection and dissemination of information concerning space medicine and of space research results that could be applied to medical research in general; if need be, WHO, and other agencies could call meetings to provide for international discussion of selected problems in that field.

6. The techniques used for the selection of astronauts and the study of the physiology of astronauts in flight might later be applied to clinical and epidemiological research. The principles and methods of training used might also be applied to aviation in general, especially once supersonic airliners had come into commercial operation. Insight gained into the physiology of man under the exceptional conditions encountered in space flight could extend knowledge of the functions of the circulatory and nervous systems and provide new information on cardio-vascular diseases. Studies of the effects of cosmic radiation could contribute to the development of means of protecting man against such radiation, and methods of environmental control used in space craft could also be applied on earth and in aviation. Advances made in processing data from space flights could be applied to research in general.

7. Furthermore, the question under discussion raised various problems—such as that of the contamination of the earth with chemical or biological materials introduced by space vehicles returning to the atmosphere—which in the view of WHO also required careful study. At the fourth session of the Committee on the Peaceful Uses of Outer Space, he had already stressed WHO's interest in the question, and he assured the members of the Committee that his agency was prepared to co-operate in the programme to the full extent of its resources.

8. Mr. HAJEK (Czechoslovakia) said the fact that it had been possible to reach an understanding in the Committee on the Peaceful Uses of Outer Space on the draft declaration of legal principles (A/5549/Add.1, para. 6) was the more gratifying because efforts to further the legal regulation of activities in outer space had up to the present lagged far behind scientific progress. The debates that had taken place in the United Nations in the preceding two years had shown that the obstacles to a solution of the legal questions involved were of a political character and not unconnected with the problems of disarmament. As a result, a deadlock had arisen. Fortunately, however, the signing of the partial test ban treaty had removed a number of the political stumbling-blocks and, together with the adoption of General Assembly resolution 1884 (XVIII), had created an atmosphere conducive to further progress.

9. The formulation of the draft declaration had been preceded by various measures taken and solutions suggested with a view to encouraging international technical co-operation. In May 1963, the Scientific and Technical Sub-Committee of the Committee on the Peaceful Uses of Outer Space had adopted recommendations on the exchange of information, the encouragement of international programmes, international sounding rocket facilities, education and training, and the potentially harmful effects of space experiments; the last recommendation was reflected in

one of the principles, contained in the draft declaration. Also of significance were the agreements on technical and scientific co-operation concluded between the Academy of Sciences of the USSR and the United States National Aeronautics and Space Administration (see A/5482). The Legal Sub-Committee, although it had had to deal with an entirely new field, had been able to carry out much useful preparatory work essential for the drafting at a later stage of specific legal instruments. Thus the draft declaration of legal principles was the result of a favourable political climate and sound preparation.

10. It was a matter for satisfaction that paragraph 4 of the draft declaration stressed the requirement that the activities of States in outer space should be carried out in the interest of maintaining international peace and promoting international co-operation, and that the international responsibility of States for national activities was recognized in paragraph 5. The need to protect outer space and the interests of humanity against potentially harmful activities or experiments, dealt with in paragraph 6, was also an extremely important point.

11. Despite those positive features, however, the draft declaration, which was the product of a compromise, did not fully satisfy his delegation, which would have preferred a more binding document in which certain principles were more categorically expressed. Moreover, a number of questions still required clarification. The law of outer space was only in its beginnings, and must be rapidly developed if it was to keep pace with the tremendous technical progress being made in the exploration of space. A number of questions were already ripe for detailed treatment, in particular questions pertaining to assistance to cosmonauts and space craft and liability for damages resulting from activities in outer space. The legal regulation of those questions was an urgent task. It was generally agreed that they should be dealt with in an international treaty, the drafting of which could be entrusted to the Legal Sub-Committee on the basis of the principles laid down in the draft declaration. The task should be facilitated by the fact that substantial agreement had been reached on the establishment of a working group or groups. As in the past, his Government was ready to play an active part in developing that aspect of international law.

12. Draft resolution A/C.1/L.332, which was now before the Committee, noted the results achieved by the Committee on the Peaceful Uses of Outer Space and the activities of States and international organizations in promoting research on the use of outer space, and laid down terms of reference for the future work of that Committee. It provided a basis for further international co-operation in different scientific branches. His country, which was a member of the Committee on the Peaceful Uses of Outer Space and its two sub-committees, and whose scientists were active in international programmes connected with outer space and meteorology, would always support all steps designed to promote international co-operation in the peaceful uses of outer space as an important contribution to peaceful coexistence and co-operation between States. His delegation had therefore been glad to become one of the sponsors of draft resolution A/C.1/L.332.

13. Mr. DE LA MALENE (France) said that it was gratifying to note the increasingly interesting character of the First Committee's discussions on the present item, which were moving away from vague

generalities to the consideration of concrete problems, and thereby truly contributing to international co-operation. The high quality of the statements that had been heard was symptomatic of the growing importance and complexity of the problems involved. The practice, now habitual, of recapitulating recent achievements in space was not to be condemned, for aside from expressing the legitimate pride of the States concerned, such statements evidenced their increasing awareness that those achievements were a matter of international concern and underlined the need for extending international co-operation in space activities.

14. Since the United Nations offered a forum in which its Members could make known to public opinion the extent of their endeavours and the nature of their objectives, he felt justified in acquainting the Committee with the definition of French policy on the exploration and use of outer space which had recently been given by the French Minister of State responsible for scientific and space activities.

15. The Minister had stressed that the independence and survival of nations had always been closely bound up with their scientific achievement; there was no branch of science from which France, alone or in association with other countries, could afford to remain aloof. Although France's limited means precluded efforts of the kind being made by the major space Powers, that was no excuse for inactivity. France must therefore use its resources both for its own national programmes and to support the recently established European organizations. Both France and Europe were convinced that they had a part to play in space research, and that the technical progress essential for space exploration had many fruitful and practical applications in other fields. It would have been a mistake for France to remain idle, and that mistake had been avoided.

16. As that statement showed, France recognized the value of international co-operation, whether bilateral or multilateral. It hoped to have its fair share in the planning, execution, ownership and operation of the great ventures already taking shape—for example, in the establishment of a world-wide system of communication by satellite—and was associated with many specialized projects and international programmes all over the world. In that connexion, his country had noted with interest the reports of WMO (E/3794 and Corr.1) and ITU (E/3770), both of which were valuable contributions which stressed the need for greater international co-operation.

17. His delegation was happy that it had proved possible to overcome the deadlock which had existed in the Legal Sub-Committee of the Committee on the Peaceful Uses of Outer Space on the subject of a declaration of legal principles governing space activities. The views of the French Government on the draft declaration would be found in the verbatim record annexed to document A/5549/Add.1. While supporting the principles set forth in the draft declaration, he wished to stress that the latter could not be looked on as more than a statement of intention; legal obligations stricto sensu could only flow from international agreements, and an international law of outer space had yet to be created. Moreover, most of the principles set forth would have to be dealt with in specific agreements; that applied for example to the questions of liability for damage caused by objects launched into space and assistance in the return of astronauts and space craft.

The Legal Sub-Committee or its working groups should compile an exhaustive list of questions capable of being embodied in international agreements, and should draft corresponding texts. In that way, a real space law would progressively come into being.

18. In the light of those considerations, his delegation had joined the sponsors of draft resolution A/C.1/L.332.

19. Mr. COOK (Australia) said that since his country's views on the matters discussed by the Committee on the Peaceful Uses of Outer Space were already a matter of record, Australia having played an active part in the work of that Committee and its two Sub-Committees, he did not propose to repeat them. However, he wished to draw attention to two paragraphs in the Committee's report which had received little notice from the First Committee. He referred to the invitation to COSPAR to review the geographic distribution and capabilities of sounding rocket launching facilities, and to advise the Scientific and Technical Sub-Committee on desirable locations and important topics of research, taking into account the need to avoid duplication of effort (A/5549, para. 16 (b)), and to the recommendation that, where there was shown to be a need, Member States in appropriate locations, either singly or in co-operative groups, should consider the establishment of such a launching facility following the basic principles approved by the Committee on the Peaceful Uses of Outer Space (*ibid.*, para. 16 (c)).

20. Those two paragraphs epitomized many of the things which the Committee on the Peaceful Uses of Outer Space was trying to do. In the first place, while the Committee could not at present act in any major way as the international co-ordinator of national efforts, it could with advantage review existing and planned programmes with a view to indentifying overlaps and blind spots. That was an important function, if only because of the cost of space research and its application and because of the world scarcity of scientific and technical resources. Secondly, through the recommendation contained in paragraph 16 (c) of its report the Committee was fulfilling its rightful task of encouraging international co-operation in the domain of outer space. Sounding rocket ranges were the first step taken by any country, large or small, into space, and it was important that a comprehensive grid of sounding rocket ranges should be developed around the world in order to avoid neglecting important areas, such as the Southern hemisphere, which looked out on a very different portion of the skies from that observed in the Northern hemisphere, where most of the space countries were situated. It was also important that an opportunity should be given to the smaller States to take that first step into space with the encouragement and assistance of the United Nations.

21. Australia had for long had the only sounding rocket range in the Southern hemisphere. Recently, however, a notable addition had been made in the Argentine range at Chemical, which was almost exactly on the other side of the world from the Australian range at Woomera. That was very useful scientifically, and there had already been co-operation between the two ranges. By providing Woomera as the launching range for the new rocket being developed by ELDO to place in orbit quite large satellites, Australia was giving a practical demonstration of that international co-operation which the Committee on the Peaceful

Uses of Outer Space had been set up to foster. Having such a range, however, brought its own problems, one of which was the question of liability for damage caused by objects launched into outer space from Woomera. The Australian views on that question were set out at length in the verbatim record of the Committee's 24th meeting, which was annexed to document A/5549/Add.1 and he therefore did not propose to repeat them at the present time.

22. With regard to the draft declaration of legal principles governing the activities of States in the exploration and use of outer space, the Australian delegation agreed with the representative of India that procedures for complying with the principle relating to potentially harmful space experiments remained to be established. Australia continued to believe that the principle of international consultation might be linked explicitly with the COSPAR Consultative Group on Potentially Harmful Effects of Space Experiments, the functions and composition of which had just been outlined by the representative of COSPAR.

23. The Australian delegation welcomed the adoption of General Assembly resolution 1884 (XVIII), in which States were called upon to refrain from placing weapons of mass destruction in orbit or stationing such weapons in outer space. That resolution, together with the partial nuclear test ban treaty—which, by banning nuclear explosions in outer space, removed the risk of one type of harmful experiment—clearly affected the work of the Committee on the Peaceful Uses of Outer Space. While it was not for that Committee to deal with matters that came within the province of the Conference of the Eighteen-Nation Committee on Disarmament, it was only realistic to recognize that the spheres of interest of the two Committees did touch upon each other, even if they did not actually overlap.

24. His delegation had read with great interest the report of ITU. Perhaps the most important act of ITU in 1963 had been the convening in October of the Extraordinary Administrative Radio Conference, which had reached agreement on the allocation of frequency bands for space communication and on procedures for their use. Those agreements were important for two main reasons. Firstly, they paved the way for the orderly introduction of global satellite communication facilities, which would probably be the first major practical application of space research and which opened up extraordinary prospects for all countries of the world, not least those which were of large expanse or at a great distance from the main world centres. All countries would as a result soon have to take a number of fundamental decisions on such questions as whether they wanted to participate in any global satellite communications facilities which might be set up, and, if so, whether they were to have a voice in decisions regarding the choice of satellite system, the provision of parts of the facilities, such as ground stations, and the management, ownership and use of the facilities. There had already been much international consultation on those questions, and more was being planned for 1964.

25. The second reason for the importance of the decisions of the Extraordinary Administrative Radio Conference was the special allocation made for radio astronomy work. Since the end of the Second World War, Australian scientists had played a leading part in the field of radio astronomy, and had developed a number of devices which had been copied in many countries of the world and had helped to add to man's

knowledge of the universe. For that reason Australia particularly welcomed the fact that the Conference had, through its decision, protected the interests of radio astronomers.

26. Draft resolution A/C.1/L.332, of which Australia was a sponsor, was self-explanatory. Because that draft resolution recognized past accomplishments, and also because it set future tasks for the Committee on the Peaceful Uses of Outer Space and for the Secretariat, the Australian delegation commended it to the Committee for unanimous adoption. It also hoped that the draft declaration of legal principles would be adopted unanimously.

27. Mr. VAKIL (Iran) said that the signing of the partial test ban treaty, the agreement not to place weapons of mass destruction in outer space, and the agreement between the United States and the Soviet Union on co-operation in the use of weather satellites showed that the space Powers had committed themselves to the principle that outer space should be used for peaceful purposes only.

28. The reports of the Committee on the Peaceful Uses of Outer Space (A/5549 and Add.1) showed that the Committee had made progress in dealing with both the scientific and the legal aspects of space activities. He was particularly pleased to note that the United Nations and the specialized agencies were giving increasing attention to the problem of training personnel of the developing countries in the peaceful uses of outer space. WMO and ITU, had special roles to play, since the developing countries particularly desired assistance in meteorology and communications. The type of aid that UNESCO could provide was best illustrated in the part it was to play in connexion with the sounding rocket launching site at Thumba, India. It was also gratifying that the United Nations Secretariat was gradually building up a staff of space specialists, so that the Organization might soon be able to function as an administrative space centre.

29. The draft declaration of legal principles governing the activities of States in the exploration and use of outer space represented a break-through in the evolution of space law, and the United States and the Soviet Union had made it clear that they regarded the declaration as only a first step in the formulation of a comprehensive body of space law. His delegation did not share the view that it would be premature at present to attempt to formulate specific rules governing space activities, for outer space was a field in which technology had greatly outpaced the development of law. He hoped that international agreements would be concluded on liability for space vehicle accidents and on assistance to and return of astronauts and space vehicles—the two subjects which had often been described as ripe for immediate codification.

30. The report of ITU showed that that agency was trying to meet the challenge presented by artificial satellites in the field of communications. He was encouraged by the statement in the report of WMO that mankind would eventually have the power to influence weather, and even climate, on a large scale; that should be a primary objective of future research efforts. WMO should be congratulated on its action in setting up a development fund with an initial capital of \$1.5 million to finance projects relating to the World Weather Watch.

31. As a sponsor of draft resolution A/C.1/L.332, his delegation urged its unanimous adoption by the Committee.

32. Mr. CARTWRIGHT (World Meteorological Organization) said that a year earlier, in response to General Assembly resolution 1721 (XVI), his organization had submitted its "First report on the advancement of atmospheric sciences and their application in the light of developments in outer space" (A/5229), in which a wide variety of subjects, including the idea of the World Weather Watch and the areas of research in the atmospheric sciences which might be aided by the use of data from meteorological satellites, had been discussed. In General Assembly resolution 1802 (XVII), WMO had subsequently been recommended to develop in greater detail, in consultation with other interested organizations, its plan for an expanded programme to strengthen meteorological services and research, placing particular emphasis on the use of meteorological satellites and on the expansion of training and educational opportunities, and to report to the Committee on the Peaceful Uses of Outer Space and to the Economic and Social Council. Since then, the World Meteorological Congress held earlier in 1963 had taken a number of far-reaching and important decisions which affected the programmes for the next few years and were discussed in WMO's second report to the Economic and Social Council and the Committee on the Peaceful Uses of Outer Space (E/3794 and Corr.1).

33. The meteorological satellite had already shown that it could provide vast quantities of data for use in the solution of problems in the atmospheric sciences and in the daily operation of weather services. However, those data also showed that the networks of observing stations which provided the more conventional types of weather information needed improving. The satellite thus provided a stimulus for a general improvement of all aspects of the global observation network. Meteorological satellites were already becoming increasingly dependable; one satellite in the Tiros series had had thirteen months of useful life, during which it had transmitted approximately 60,000 pictures for use in cloud analysis and storm warnings. New experiments were being conducted to provide for direct reception of cloud-cover photographs by individual countries.

34. The World Meteorological Congress had established an Advisory Committee of twelve eminent scientists to provide guidance on research and operational problems related to satellite meteorology. The task of the Advisory Committee, which was to meet early in 1964, would be to advise on the principal research problems in the atmospheric sciences, including ways of promoting research, and on other scientific aspects of the objectives set forth in General Assembly resolutions 1721 (XVI) and 1802 (XVII), including those relating to education and training. The Congress had also endorsed the concept, put forward in the first report, of a world weather service provided by the integrated effort of national meteorological services. That integrated effort, now known as the World Weather Watch, was described in the second WMO report. It brought to the active planning stage the hopes which meteorologists had long cherished of achieving a global description of the meteorological situation, and had been made possible by the development of new observation tools, such as rockets and satellites, and new devices for rapidly processing vast quantities of data. In addition, the World Meteorological Congress had authorized the establishment within the WMO secretariat of a planning organization to develop a detailed global plan for the World Weather Watch, to provide liaison with the United Nations and with the other specialized

agencies concerned, and to pursue the effort to obtain the necessary resources for implementing the various plans.

35. Because of lack of resources, urgent needs for the improvement of meteorological facilities had not yet been met. WMO had therefore decided to establish a new development fund which would be used to meet requests from members for assistance in the implementation of valid projects which could not otherwise be supported. A detailed plan for the operation and management of the fund had been submitted to WMO members and was expected to be approved and implemented in 1964. However, the fund authorized was very modest, and would not be able to meet all the requirements, particularly in the field of capital investment, so that additional efforts by national meteorological services would be needed. Increased assistance from the international aid organizations would also be sought.

36. Great importance was attached by WMO to the agreement on space co-operation concluded between the Soviet Union and the United States of America (see A/5482). All members of WMO would benefit from that agreement, which among other things covered arrangements for the speedy exchange of satellite data and, eventually, for the co-ordination of launchings of weather satellites so as to provide maximum coverage of the globe on a continuous basis.

37. In conclusion, WMO appreciated the encouragement of the United Nations to capitalize on the new opportunities provided by developments in the peaceful uses of outer space for improving man's knowledge of the atmosphere. The challenge had been accepted, and WMO felt now that it was organized to get on with the task and was proceeding to do so as quickly as possible.

38. Mr. KIZIA (Ukrainian Soviet Socialist Republic), pointing out that a Ukrainian cosmonaut had been among the Soviet pioneers in outer space and that Ukrainian scientists were extremely active in space research, said that the flow of practical ideas resulting from such research was tremendous and affected many branches of science. However, the discoveries of science could be of benefit to mankind only if they were used for peaceful purposes and for human happiness.

39. His delegation therefore supported the work of the Committee on the Peaceful Uses of Outer Space, whose reports (A/5549 and Add.1) were now before the First Committee, and wished to commend the Legal Subcommittee and Mr. Lachs, its Chairman, on their efforts to reach agreement on basic legal principles governing the activities of States in the exploration of outer space. The signing of the partial test ban treaty showed that many problems, including the one now before the First Committee, could be solved through negotiation if a reasonable, realistic approach was adopted. The space co-operation agreement concluded on 8 June 1962 between the Academy of Sciences of the USSR and the United States National Aeronautics and Space Administration was an example of what could be accomplished in that regard. Nevertheless, his delegation shared the USSR delegation's view that the question of the peaceful uses of outer space could not be separated from that of general and complete disarmament; once disarmament was achieved, the problem of prohibiting the military use of outer space would cease to exist. Another question which must be settled was the elimination of military bases in the territory of other countries.

40. The draft declaration of legal principles governing the activities of States in the exploration and use of outer space (A/5549/Add.1, para. 6) represented a major advance, in that it recognized the common interest of all mankind in the exploration and use of outer space for peaceful purposes. It would thus help to strengthen peaceful coexistence and mutual understanding between States with different social systems. His delegation would vote for the draft declaration and hoped that, after its adoption, the United Nations would pursue its efforts to solve other problems through negotiation.

41. Mr. MATSCH (Austria), speaking on behalf of the officers of the Committee on the Peaceful Uses of Outer Space, said that after fresh consideration and in agreement with India as the host country, they were proposing that the group of scientists to visit the sounding rocket launching facility at Thumba, India, as provided in section II, paragraph 2 (e), of draft resolution A/C.1/L.332, should be composed of six instead of five scientists.

42. Mr. THACHER (United States of America) said that his delegation, one of the sponsors of the draft resolution, would like a little time to consider the proposed change, although he did not believe the matter would raise any difficulty.

43. Mr. MENDEZ (Argentina) said it was encouraging to note the substantial advances which had been made during the previous year not only in the technical but also in the legal aspect of the problems of outer space. The partial test ban treaty and General Assembly resolution 1884 (XVIII) represented important contributions to the denuclearization of outer space and had helped to create the confidence necessary for fruitful international co-operation.

44. The draft declaration of legal principles governing the activities of States in the exploration and use of outer space that was before the Committee would help to regulate such activities in accordance with international law. However, that document was not definitive, and he hoped that it would be supplemented by the addition of other principles and improved by the more detailed and precise elaboration of certain concepts not yet formulated with the utmost legal rigour. His delegation believed that the principle that outer space should be used for the benefit of mankind and solely for peaceful purposes was a basic one which should be emphasized in the clearest terms, and he regretted that the draft declaration, unlike General Assembly resolutions 1348 (XIII) and 1472 (XIV), did not contain an explicit clause to that effect; the draft declaration, however, undoubtedly marked a valuable advance and would be supported by his delegation.

45. Five national universities and ten specialized institutions in Argentina were carrying on research related to outer space; agreements on international co-operation in outer space activities had been concluded with the United States and France and, it was hoped, would be concluded with other countries as well.

46. It was evident from the report of the Committee on the Peaceful Uses of Outer Space that many valuable steps had been taken by the Scientific and Technical Sub-Committee. In the field of education and training, the Argentine delegation was particularly gratified to note that Governments were to be encouraged to make requests for scholarships and technical assistance for research programmes in the field of outer

space. The technical assistance activities of the specialized agencies in that field should be expanded.

47. The valuable contribution made by WMO and ITU to international co-operation programmes was reflected in their reports and was recognized in sections III and IV of draft resolution A/C.1/L.332. The recent hurricane disaster in the Caribbean had made clear the need for improved world-wide weather information; the World Weather Watch should enable all countries to benefit from the information obtained from meteorological satellites. The use of communications satellites had brought the world to the threshold of instantaneous global communication. At the same time, the Scientific and Technical Sub-Committee was performing an important service in promoting careful exchanges of information on the potentially harmful effects of space experiments.

48. The Argentine National Commission for Space Research had established a rocket launching base at Chamental, where Centaure rockets had been launched for the first time in Latin America; the work was being carried out with the co-operation of the French National Centre for Space Studies, the International Council of Scientific Unions, COSPAR and the Smithsonian Astrophysical Observatory. The Argentine National Commission had invited scientists from various countries to observe the Chamental rocket tests. It had invited the Latin American countries to consider the possibility of carrying out joint experiments, and offered its Chamental facilities for the use of Latin American scientific groups and universities desiring to carry out space research for peaceful purposes. Argentina hoped to initiate an exchange of information with India in connexion with the proposed establishment of a sounding rocket facility at Thumba, and would give assistance in that project within the framework of the United Nations.

49. Mr. KOLBASIN (Byelorussian Soviet Socialist Republic) said that his delegation supported the draft declaration of legal principles governing the activities of States in the exploration and use of outer space (A/5549/Add.1, para. 6) and hoped that the principles enunciated in it would be observed by all States. His delegation also supported draft resolution A/C.1/L.332, which could promote the development of peaceful space research for the benefit of all mankind.

50. The United Nations should do everything possible to encourage international co-operation not only in outer space but also in other fields such as nuclear energy and automation. In that connexion, his delegation supported the various proposals for space co-operation put forward in the Committee on the Peaceful Uses of Outer Space, including the suggestion by Mr. A. A. Blagonravov, a member of the Academy of Sciences of the USSR, that UNESCO or COSPAR should publish a multi-volume work on the fundamentals of bio-astronautics during 1964-1965 with United Nations aid. His delegation welcomed the various decisions concerning international co-operation taken by the Fourth Congress of WMO. Thanks largely to the goodwill demonstrated by the USSR and the United States, the Congress had approved a plan to establish a World Weather Watch in which a number of smaller countries, which could not launch meteorological satellites, would be able to participate by maintaining observation stations; he noted that there were to be a number of such stations in the territory of Byelorussia. His delegation also welcomed the agreement concluded by the USSR and the United States on 24 May 1963 concerning

a joint programme for mapping the earth's magnetic field with the aid of satellites (see A/5482). The sixth session of COSPAR and the Fourth International Space Science Symposium, at which Soviet, United States, Japanese and other scientists had presented reports on the question whether life existed in outer space, had been held at Warsaw in June 1963 and provided another striking example of international co-operation. The triumphs of Soviet scientists were an important positive factor in international co-operation in the peaceful uses of outer space; the recent launching

of the manoeuvrable spaceship, Polet I, was further evidence of the leading role which the USSR was playing in that regard.

51. He concluded by observing that the signing of the partial test ban treaty had created favourable conditions for international co-operation in space; it must be a primary task of the United Nations to clear away the remaining obstacles to such co-operation.

The meeting rose at 12.55 p.m.