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COMMITTEE ON THE PEACEFUL USES OF OUTER SPACE

LEGAL SUB-COMMITTEE

Eighteenth session

SUMMARY RECORD OF THE 316th MEETING

Held at Headquarters, New York, on Wednesday,
4 April 1979, at 10.30 a.m.

Chairman: Mr. WYZNER (Poland)

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The meeting was called to order at 10.50 a.m.

MATTERS RELATING TO THE DEFINITION AND/OR DELIMITATION OF OUTER SPACE AND OUTER SPACE ACTIVITIES, BEARING IN MIND, INTER ALIA, QUESTIONS RELATING TO THE GEOSTATIONARY ORBIT (continued) (A/AC.105/C.2/7 and Add.1, A/AC.105/C.2/L.121)

1. Mr. BOND (United States of America) recalled that several years earlier the Scientific and Technical Sub-Committee had, after detailed study concluded that there were no scientific or technical characteristics of the earth's upper atmosphere that would serve as a natural determinant of the lower limits of outer space. It had requested guidance from the parent Committee regarding the purposes for which various criteria relevant to a definition of outer space should be reviewed. However, the subject had since been dropped from the agenda of the Scientific and Technical Sub-Committee because the parent Committee had been unable to identify practical problems that would require a definition. That point was central to his Government's position on the issue. Any proposal on the definition of outer space should be viewed in the light of whether the difficulties it involved were worth accepting, given the absence of practical problems relating to the exploration and use of outer space whose solution would be facilitated by such a definition.
2. The proposal to establish a boundary at the arbitrary altitude of 100 to 110 kilometres involved significant difficulties. First, that region was devoid of physically observable milestones. Most countries had no capability for accurately determining the altitude of space objects and therefore had no way to monitor an altitude boundary.
3. Secondly, such a boundary would substantially affect not only the sovereign rights of States but also their ability to work together as a community of nations. In his delegation's view, Member States could not predict with confidence the consequences of choosing that arbitrary altitude.
4. His delegation did not believe that there had yet been adequate examination of the many scientific, legal, technical and political factors relevant to the drawing of any particular line in the sky. Was it certain, for example, that any eventual norms for the use of nuclear power sources in outer space should be applicable only above 100 kilometres? Furthermore, complex physical and chemical processes were going on in the upper atmosphere and in near-earth space, affecting both subjacent States and the entire world community. For example, the scientific community had drawn attention to the adverse global effects of disturbances in the ozone layer which surrounded the planet at an altitude of about 35 kilometres, far below the proposed boundary. Had adequate consideration been given to such factors?
5. Thirdly, an arbitrary line might inhibit or even stifle future efforts to explore and use space. For example, according to the Committee on Space Research (COSPAR) of the International Council of Scientific Unions (A/AC.105/164, foreword, it

(Mr. Bond, United States)

seemed that past estimates on the lowest altitudes to which satellites could plunge without falling to the ground or burning up in the atmosphere had been too high, especially for satellites with highly eccentric orbits which penetrated the atmosphere for a limited time during each revolution around the earth. Member States should be grateful that the Committee on the Peaceful Uses of Outer Space had not acted precipitately in adopting a demarcation line based on assumptions which now appeared to be invalid. It was by no means certain that present proposals were based upon better physical assumptions; for example, one satellite launched in 1974 was known to have a perigee of 96 kilometres.

6. His delegation appreciated the effort undertaken by the Soviet Union in producing its proposal (A/AC.105/C.2/L.121) and recognized the difficulties involved. However, it did not believe that the proposal avoided the problems he had mentioned. Furthermore, it was not clear how a space object was to be defined for the purposes of paragraph 3 of that proposal. There was also some doubt about the usefulness of a provision which could prevent a space object from returning to earth in the territory of any country except the launching State; the consequences of such a provision could only inhibit international co-operation.

7. His delegation continued to believe that no acceptable legal or scientific case could be made for claims of sovereignty over the geostationary orbit. At an altitude of 36,000 kilometres, that orbit was clearly an integral part of outer space.

8. Mr. LE GOURRIEREC (France) said that France was interested in the definition and/or delimitation of outer space and outer-space activities because of the present unsatisfactory situation in which outer-space law failed to define precisely its own field of application. It established specific rules based, inter alia, on the principle of freedom set forth in article I of the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies, whereas air-space law was based primarily on the sovereignty of States. Ignorance of the respective fields of application of such different legal régimes was dangerous. Even though the lack of a definition of outer space had not yet given rise to major problems, the question of such a definition should not be dismissed as being too theoretical. Sooner or later, concrete problems were bound to arise, given the increasing number of States engaged in space activities.

9. The definition would have to be arbitrary, inasmuch as there were no sufficiently precise scientific criteria for a clear-cut determination of the boundary between air space and outer space. The figures most often mentioned were between 80 and 120 kilometres. The procedure for definition should be similar to that followed in the elaboration of the major space-law instruments. In that respect, primary responsibility lay with the Legal Sub-Committee.

10. The Soviet Union's working paper relating to the delimitation of air space and outer space (A/AC.105/C.2/L.121) afforded a coherent over-all approach to the question. The proposed establishment of the boundary at 100 (110) kilometres

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(Mr. Le Gourrierec, France)

above sea level appeared reasonable to his delegation, and the document was relevant in other respects. It was important, however, for the Legal Sub-Committee to consider the question in the light of the work being done by other interested bodies, such as the International Civil Aviation Organization.

11. The Legal Sub-Committee was the best forum for the discussion of the definition and/or delimitation of outer space and outer-space activities, and the views of all delegations would be very useful in guiding its future work. At the nineteenth session, his delegation would report on his Government's response to the Soviet proposals.

12. Mr. EL-BANHAWI (Egypt) said that his delegation regarded the question of the definition and delimitation of outer space as one of the main issues in the field of space law. The importance of the future uses of outer space necessitated establishing an accurate definition on the basis of technical, scientific and legal factors; his delegation could not agree to either functional or arbitrary criteria. It was necessary to view outer space as the common heritage of mankind and to ensure the freedom of all countries in the exploration and use of outer space.

13. As Egypt had asserted over 10 years earlier, a clear definition of outer space would assist efforts to provide a legal framework to regulate activities conducted in outer space beyond national jurisdiction and activities which fell partly or completely under State sovereignty. Such a definition would no doubt benefit all States. Egypt considered the geostationary orbit to be part of outer space and free from national jurisdiction.

14. To gain wide acceptance, a definition of outer space should be legally and scientifically elaborated. However, in view of the wide gaps in knowledge between different countries, it was essential for the developed countries to furnish comprehensive information on the question. His delegation was open-minded on the issue and appreciated the objective efforts to formulate an acceptable definition.

15. Mr. KOLOSSOV (Union of Soviet Socialist Republics) said that his delegation was grateful to other delegations for their support for the Soviet working paper (A/AC.105/C.2/L.121). It found unacceptable, however, the argument that establishing the boundary at 100 (110) kilometres above sea level would restrict space activities. There were legal instruments in force, such as the Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space, which contained provisions regarding activities on earth. The Convention on International Liability for Damage Caused by Space Objects contained provisions regarding activities carried out in air space and on the earth's surface. His delegation hoped that its approach would meet with greater understanding in the future and that delegations would study its proposals more thoroughly and consult with specialists.

16. Some delegations had expressed interest in the drafting of a special legal régime for the geostationary orbit. Such a régime should be based on the considerations on the legal status of the geostationary orbit submitted by the

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(Mr. Kolossov, USSR)

Soviet Union at the twentieth session of the Committee on the Peaceful Uses of Outer Space (A/32/20, annex VI). The geostationary orbit was inseparable from outer space, and all relevant provisions of the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies, were applicable to it. Under that Treaty, the geostationary orbit, like outer space as a whole, was not subject to national appropriation by any means whatsoever. The placing of satellites in the geostationary orbit by States created no right of ownership over the respective orbital positions of the satellites or over segments of the orbit. All States enjoyed an equal right to the utilization of the geostationary orbit, and its utilization must not be detrimental to the interests of other States. States should co-operate on questions relating to the placing of communications satellites in the geostationary orbit, giving due regard to the recommendations and decisions of the International Telecommunication Union concerning the utilization of the radio-frequency spectrum allocated for the various types of space communications.

17. The CHAIRMAN said there seemed to be general agreement that the item should remain on the agenda of future sessions of the Sub-Committee. There was, however, no agreement on the method of arriving at a definition of outer space, on the content of such a definition or on the degree of urgency of its formulation. Lastly, there was disagreement on the status of the geostationary orbit, although the Committee did not seem to exclude the possibility of preparing a special régime for the geostationary orbit in the future.

OTHER MATTERS

18. Mr. HAMPE (German Democratic Republic) said it was generally recognized that the use of nuclear power sources in satellites was legitimate and consistent with outer-space treaties. Malfunctions, as phenomena possibly accompanying scientific and technical progress, could not be altogether excluded in any sphere of life, but they should always be considered in relation to the long-term benefits for all mankind. At the sixteenth session of the Scientific and Technical Sub-Committee, the Working Group on the Use of Nuclear Power Sources in Outer Space had concluded that such power sources could be used safely in outer space provided that the relevant safety considerations were met (A/AC.105/238, annex II, para. 39).

19. His delegation shared the concern about risks which might result for a State from hazardous malfunctions of outer-space objects but wondered whether, for instance, prior notice of the launch of a satellite with nuclear power sources on board would contribute to safety or whether the people of the earth would be unnecessarily alarmed by such notifications. Of course, immediate notification would always have to be given if a space object with nuclear power sources on board was malfunctioning and posed an acute risk of damage to the territory of other States. All Member States had agreed to General Assembly resolution 33/16, which contained a recommendation to that effect.

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(Mr. Hampe, German Democratic Republic)

20. His Delegation had carefully studied the Canadian proposal concerning the inclusion of an item on nuclear power sources in the agenda of the Legal Sub-Committee but felt that the proposal, as it stood, would not lead to desirable results in the foreseeable future.

21. Mr. LE GOURRIEREC (France) said that his delegation could accept the Canadian proposal concerning the inclusion of an agenda item on nuclear power sources, on the understanding that it was the Committee on the Peaceful Uses of Outer Space and then the General Assembly that would take a final decision on the inclusion of such an item.

22. Consideration of the proposed item should take into account the results of the work being done in the Scientific and Technical Sub-Committee, which should form the basis for discussion, since technical factors would be involved. In considering such an item the Legal Sub-Committee should also assess existing international legal norms, with a view to determining to what extent they needed to be complemented.

23. Mr. CARAZO (Venezuela) said that although the use of nuclear power sources in outer space could greatly benefit mankind, it also involved risks which must be taken into account. No effort, however, should be spared to use those sources of energy which carried no risk of pollution. His delegation supported the establishment of a legal régime for nuclear-powered satellites and welcomed the Canadian proposal concerning the inclusion in the Sub-Committee's agenda of an item on the legal aspects of the use of nuclear power sources in outer space. Venezuela was particularly interested in aspects related to disaster prevention and studies on radiation-exposure levels. It also believed that the activities of the Scientific and Technical Sub-Committee were compatible with and complementary to those of the Legal Sub-Committee and that no obstacle should be placed in the way of prompt consideration of the legal aspects of the use of nuclear power in outer space.

24. Mr. KOLOSSOV (Union of Soviet Socialist Republics) said that the Soviet Union agreed that the use of nuclear power sources in outer space should take account of the need to ensure the safety of human beings and the environment. At the sixteenth session of the Scientific and Technical Sub-Committee, the Working Group on the Use of Nuclear Power Sources in Outer Space had considered some of the technical aspects and safety measures relating to that question. The Working Group would be continuing its work, which would yield results of its own.

25. Some of the problems referred to by delegations had already been settled at the international legal level. For example, General Assembly resolution 33/16 requested launching States to inform States concerned in the event that a space object with nuclear power sources on board was malfunctioning with a risk of re-entry of radio-active materials to the earth. That resolution had been adopted by consensus, and States should act in full accordance with its provisions. The

necessary steps were therefore already being taken pursuant to that resolution and to the recommendations made by the Committee on the Peaceful Uses of Outer Space at its twenty-first session (A/33/20, para. 76).

26. Some delegations had raised the question of including in the Legal Sub-Committee's agenda a separate item on the legal aspects of the use of nuclear power sources in outer space. The scope of the proposed item, as worded, was very broad. The initial reaction of delegations indicated that the problem consisted of a number of specific questions which were, at varying levels, ready for discussion in a legal forum. There seemed to be a preference for a discussion of some aspects of that multifaceted problem, most of which were related to complex technical matters not fully understood by jurists. It therefore seemed premature to adopt a specific recommendation for the inclusion of the proposed item as described by the present wording of the proposal. The Legal Sub-Committee should give further thought to the matter before doing anything likely to disrupt the consensus reached after difficult negotiations at the twenty-first session of the Committee on the Peaceful Uses of Outer Space. It was also important not to complicate further the work recently begun in the Working Group by prematurely expressing a legal view. That would not be conducive to a business-like atmosphere in the Group. His delegation would give the various views of other delegations the serious consideration they deserved. For the time being, however, it felt that the proposed item, as worded, seemed unlikely to contribute to specific results on any particular legal aspect of the problem. It should also be borne in mind that the Legal Sub-Committee's agenda was already full and that new items, especially if broad in scope, could delay the conclusion of work on other questions which were of great concern to all and required settlement on a priority basis.

27. Mr. TAKEV (Bulgaria) said his delegation agreed with those of the German Democratic Republic and the Soviet Union that the inclusion in the agenda of a separate item on the legal aspects of the use of nuclear power sources in outer space was premature. The agenda of the Sub-Committee was already quite heavy, and the Canadian proposal, as formulated, was too broad. When the technical aspects of the problem became clear, the Sub-Committee could take up the legal aspects.

28. Mr. KIRSCH (Canada) said that his delegation appreciated the support which its proposal had received and regretted that that support was not unanimous. He wished now to reply to some of the points raised by the Soviet Union in commenting on that proposal. Firstly, the Soviet representative had said that some of the legal aspects of the use of nuclear power sources in outer space had already been settled, in particular in General Assembly resolution 33/16. While he would agree that legal aspects of the matter had been raised in the resolution, he could not agree that they had been settled, although the problem might be simply one of semantics or interpretation. He agreed that the resolution and other instruments of international law provided good points of departure for the Committee's consideration, but they needed extension.

(Mr. Kirsch, Canada)

29. Secondly, the Soviet representative had spoken of the need to consider the technical aspects of the use of nuclear power sources in outer space before moving on to the legal aspects. He would agree that the Legal Sub-Committee should monitor the work of the Scientific and Technical Sub-Committee, but he could not agree that work on the problem in the Legal Sub-Committee might compromise the work of the Scientific and Technical Sub-Committee. His delegation had no wish to interfere in the work of that Sub-Committee but felt that there was an essentially legal side of the matter which should be dealt with in the Legal Sub-Committee. Was it, for instance, desirable that States launching satellites containing nuclear power sources should provide information on the existence of such sources in their satellites and on other problems in connexion with the operation of those satellites? Was it desirable for the Legal Sub-Committee to study the possibility of improving the international assistance machinery? Should States be obliged to take specific security measures in connexion with satellites containing nuclear power sources? His delegation felt that the wishes of the Legal Sub-Committee with regard to those questions should be clarified. Once the questions of principle had been taken up, the technical problems, particularly in connexion with implementation, would arise, as they always had in the case of other matters dealt with by the Sub-Committee. In the view of his delegation, the Sub-Committee already had enough information to begin a study of the matter.

30. Thirdly, he did not understand why the Soviet representative opposed the inclusion of a new item concerning the question. A new item would be included only on condition that it did not prejudice the discussion of questions already on the agenda. Moreover, his delegation had reservations about the principle that the inclusion of a new item was impossible until the consideration of existing items had been concluded. The discussions on some items had lasted for many years. Yet the question of the use of nuclear power sources was one of substance and merited consideration.

31. Fourthly, with regard to the precise wording of the proposed item, his delegation would appreciate any concrete suggestions.

32. In conclusion, he said that the differences among delegations seemed to concern the method and timing of consideration of a particular item rather than the principle itself. The discussion thus far indicated a very constructive spirit, and he was convinced that a generally acceptable solution would soon be reached.

33. Mr. MATSUOZAWA (Japan) said that his delegation agreed in principle with the comments of the representative of Canada. Most delegations had felt that it would be desirable for the Sub-Committee to start examining some of the legal aspects of the use of nuclear power sources in outer space, despite the work already carried out by the Working Group on the Use of Nuclear Power Sources.

34. His delegation therefore strongly supported the Canadian proposal that a recommendation should be made to the parent Committee for the inclusion of a new item in the Sub-Committee's agenda for the next session.

35. Mr. MAAS GEESTERANUS (Netherlands) said his delegation agreed that it was possible, as the representative of the German Democratic Republic had suggested, that notification of the launching of nuclear-powered spacecraft might create undue concern among the general public. That was one of the factors to be considered when further discussions were held on the item, as proposed by the representative of Canada.
36. His delegation also agreed that the discussions in the Sub-Committee had revealed some diversity of opinion as to which particular legal aspects might be in line with States' primary interests. That issue should again be taken up in future consideration of the item. For those and other reasons, his delegation was of the opinion that the time had indeed come to have a separate item on nuclear power sources included in the Sub-Committee's agenda, so that it could carry out a thorough consideration of the legal aspects of their use in outer space.
37. The CHAIRMAN observed that there was a lack of consensus concerning the Canadian proposal to recommend the inclusion of a separate item on the use of nuclear power sources.
38. Mr. LAY (Italy) said it was his understanding that the draft report would at least reflect the desire of most delegations to recommend the inclusion of a separate item on nuclear power sources. That did not preclude reaching a consensus; should that prove impossible, the matter should be left to the parent Committee to decide.
39. The CHAIRMAN pointed out that the precise formulation of that part of the report was for the Sub-Committee itself to decide. He urged delegations to meet informally in order to reach an agreed formulation. He said that the Sub-Committee had now concluded its consideration of item 6.

The meeting rose at 12.20 p.m.