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INTERNATIONAL CO-OPERATION IN THE PEACEFUL USES OF OUTER SPACE

Report of the Committee on the Peaceful Uses of Outer Space^{1/}

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^{1/} This document incorporates the material contained in the previous report
of the Committee issued as document A/5109 and Corr.1.

ABBREVIATIONS

CIG	Comité international de géophysique
COSPAR	Committee on Space Research
IAGA	International Association of Geomagnetism and Aeronomy
ICSU	International Council of Scientific Unions
IGY	International Geophysical Year
IQSY	International Year of the Quiet Sun
ITU	International Telecommunication Union
SPACEWARN	Network for rapid communication (telegraph and radio) of information on satellites including launching announcements and orbital elements (established during the IGY and continued during the post-IGY period under the sponsorship of COSPAR)
UNESCO	United Nations Educational, Scientific and Cultural Organization
WMO	World Meteorological Organization
WMS	World Magnetic Survey

I. INTRODUCTION

1. In resolution 1721 E (XVI) of 20 December 1961, the General Assembly continued and expanded the membership of the Committee on the Peaceful Uses of Outer Space established in General Assembly resolution 1472 (XIV) and requested the Committee to meet not later than 31 March 1962 to carry out its mandate as contained in resolution 1472 (XIV), to review the activities provided for in parts A, B, C and D of resolution 1721 (XVI), and to make such reports as it might consider appropriate.

2. The expanded Committee, consisting of the representatives of Albania, Argentina, Australia, Austria, Belgium, Brazil, Bulgaria, Canada, Chad, Czechoslovakia, France, Hungary, India, Iran, Italy, Japan, Lebanon, Mexico, Mongolia, Morocco, Poland, Romania, Sierra Leone, Sweden, the Union of Soviet Socialist Republics, the United Arab Republic, the United Kingdom of Great Britain and Northern Ireland, and the United States of America, was convened at United Nations Headquarters in New York on 19 March 1962 and held eight meetings between that date and 29 March. After electing its officers, the Committee discussed the remaining item on its agenda, the programme and organization of the work of the Committee. Statements on this item were made by all the members of the Committee and by the Acting Secretary-General. The Committee also heard statements by representatives of the United Nations Educational, Scientific and Cultural Organization (UNESCO), the International Telecommunication Union (ITU), the World Meteorological Organization (WMO) and the Committee on Space Research (COSPAR) of the International Council of Scientific Unions, which it had invited to participate in its work as observers. A statement by the Chairman summarizing the work of the session, which was approved by the Committee at its 9th meeting on 29 March and included in the Committee's report (A/5109 and Corr.1), is reproduced in annex I below.

3. The Committee elected the following officers:

Chairman: Dr. Franz Matsch (Austria)

Vice-Chairman: Professor Mihail Haseganu (Romania)

Rapporteur: Mr. Geraldo de Carvalho Silos (Brazil)

4. In conducting its work, the Committee followed the agreement stated by its Chairman on 19 March (A/AC.105/PV.2) in the following terms: "It has been agreed

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among the members of the Committee that it will be the aim of all members of the Committee and its sub-Committees to conduct the Committee's work in such a way that the Committee will be able to reach agreement in its work without need for voting.

5. At its 9th meeting, the Committee agreed to establish two sub-committees of the whole, one on scientific and technical questions and the other on legal questions, which were convened at the European Office of the United Nations at Geneva on 28 May. The report of the Scientific and Technical Sub-Committee, under the chairmanship of Dr. D.F. Martyn (Australia), was approved by the Sub-Committee, at its 11th meeting, on 13 June, and was circulated as document A/AC.105/5. The report of the Legal Sub-Committee, under the chairmanship of Dr. Lachs (Poland), was approved by the Sub-Committee at its 15th meeting, on 20 June, and was circulated as document A/AC.105/6.

6. The Committee was reconvened at United Nations Headquarters on 10 September and held seven meetings between that date and 14 September.

7. At its 10th meeting, on 10 September, the Committee, having agreed on the proposal of the representative of the United Arab Republic, to add a new item, "General debate", to its provisional agenda (A/AC.105/Agenda 3), adopted the following agenda:

- (i) Opening statement by the Chairman.^{2/}
- (ii) General debate.
- (iii) Consideration of the report of the Scientific and Technical Sub-Committee on the work of its first session (A/AC.105/5), of the reports prepared by the World Meteorological Organization (E/3662) and the International Telecommunication Union (E/3645) in response to General Assembly resolution 1721 (XVI), and of the resolution concerning international co-operation in the peaceful uses of outer space adopted by the Economic and Social Council on 2 August 1962 at its thirty-fourth session.
- (iv) Consideration of the report of the Legal Sub-Committee (A/AC.105/6) on the work of its first session.
- (v) Report of the Committee to the General Assembly.

8. In the course of the general debate, statements were made by the representatives of Albania, Australia, Brazil, Bulgaria, Canada, Czechoslovakia, France, Hungary, India, Italy, Japan, Mexico, Mongolia, Morocco, Poland, Romania, the Union of Soviet Socialist Republics, the United Arab Republic, the United Kingdom and the United States. The statements are reproduced in the records of the 10th-13th and 15th meetings (A/AC.105/PV.10-13 and 15).
9. At the 10th meeting, on 10 September, the representative of the USSR laid before the Committee a draft declaration of the basic principles governing the activities of States pertaining to the exploration and use of outer space and a draft international agreement on the rescue of astronauts and spaceships making emergency landings. The draft declaration and the draft agreement are reproduced in annex III, sections A and B.
10. At the 11th meeting, on 11 September, the representative of the United States laid before the Committee a draft proposal on assistance to and return of space vehicles and personnel and a draft proposal on liability for space vehicles and personnel and a draft proposal on liability for space vehicle accidents. The draft proposals are reproduced in annex III, sections C and D.
11. At its 13th meeting, on 13 September, the Committee took up the agenda item concerning the report of its Scientific and Technical Sub-Committee, the reports of WMO and ITU and the Economic and Social Council resolution 913 (XXXIV) of 2 August on international co-operation in the peaceful uses of outer space. The Committee had before it an informal working paper prepared by its Bureau to facilitate the consideration of this item. Statements were made by the representatives of Canada, Italy, the Union of Soviet Socialist Republics, the United Arab Republic and the United States. Statements were also made by the Secretary-General of WMO, the representatives of UNESCO and ITU, and the representative of COSPAR, which had been invited by the Committee to participate in its work as observers. The statements are reproduced in the records of the 13th-15th meetings (A/AC.105/PV.13-15).
12. The Committee took up the item concerning the report of its Legal Sub-Committee at its 15th meeting on 14 September. Statements were made by the

representatives of Argentina, Belgium, Brazil, Czechoslovakia, Italy, Mexico, the Union of Soviet Socialist Republics, the United Arab Republic, the United Kingdom and the United States. At the 16th meeting, on 14 September, the representative of the United Arab Republic submitted a draft code for international co-operation in the peaceful uses of outer space. The draft code is reproduced in annex III, Section E.

II. RECOMMENDATIONS BASED ON THE REPORT OF THE SCIENTIFIC AND TECHNICAL SUB-COMMITTEE AND THE REPORTS PREPARED BY THE WORLD METEOROLOGICAL ORGANIZATION AND THE INTERNATIONAL TELECOMMUNICATION UNION

13. At its 15th meeting, on 14 September, the Committee approved the recommendations of the Scientific and Technical Sub-Committee reproduced in the working paper prepared by its Bureau, and presents them for consideration by the General Assembly, as follows:

Exchange of information

14. The Committee on the Peaceful Uses of Outer Space, in co-operation with the Secretary-General and making full use of the functions and resources of the Secretariat:

- (i) Will compile and organize in the most useful way consistent with the objectives of General Assembly resolution 1721 (XVI) and the report of the Committee issued as document A/5109 and Corr.1 information which may be provided on a voluntary basis relating to national, regional and international programmes of peaceful space research and exploration, and information relating to governmental and non-governmental international bodies active in this field, and will compile such information and make it available to interested Member States in convenient, concise, preferably tabular form, so as to facilitate ready reference, and keep it up to date;
- (ii) Invites COSPAR, UNESCO and other appropriate international bodies (such as WMO, ITU etc.) to make available to Member States documents on technical requirements for establishing small-scale facilities for satellite tracking, telemetry reception and sounding rocket launchings, and on other sources of useful technical information;
- (iii) Will arrange with COSPAR to make available to Member States relevant COSPAR information on its activities and on the activities of the World Data Centres for Rockets and Satellites and to make COSPAR Information Bulletins available to all Member States on a regular basis, or at least preliminarily in the form of specimen copies;

- (iv) Invites COSPAR, taking into consideration the growing number of nations interested in receiving data and information as soon as possible, to inform the Committee on the Peaceful Uses of Outer Space concerning the organization, utilization, functions and purposes of the World Data Centres for Rockets and Satellites and the SPACEWARN communication network.

Encouragement of international programmes

15. The Committee:

- (i) Notes with approval the action recently taken by the International Council of Scientific Unions (ICSU) in establishing a new international programme of scientific co-operation during the period of minimum solar activity, to be known as the International Year of the Quiet Sun (IQSY), a programme which will be complementary in many ways to the International Geophysical Year (IGY) and which, like the IGY, will include specialized scientific work in meteorology, geomagnetism, aurora, airglow, solar activity, cosmic rays, aeronomy and other disciplines pertinent to space research, exploration and use;
- (ii) Notes further with approval the establishment of an IQSY Committee by the Comité international de géophysique (CIG) of ICSU, and also the arrangements, which have already been made, for full co-operation by COSPAR in organizing the space research aspects of this programme;
- (iii) Requests UNESCO, other interested specialized agencies and Member States to give whole-hearted and effective support to the programme of the IQSY through appropriate scientific projects in their own countries or areas of interest, and through full co-operation with the IQSY Committee and with COSPAR.

16. The Committee:

- (i) Notes with approval the establishment by ICSU of a World Magnetic Survey Programme (WMS) as a deferred item of the IGY and the establishment within the International Association of Geomagnetism and Aeronomy (IAGA) of a Committee on World Magnetic Survey and Magnetic Charts;

- (ii) Notes with approval the preliminary activity of COSPAR in connexion with the space research aspects of this programme;
- (iii) Requests all specialized agencies and Member States to participate in this programme in any way appropriate to their function and capability, and further requests Member States and scientific organizations concerned with obtaining and disseminating such data to arrange for especially complete and timely transmission of such data through established World Data Centres during the period of the WMS.

17. The Committee:

- (i) Notes that COSPAR has established scientific working groups for synoptic rocket and polar-cap experiments;
- (ii) Requests Member States to call these activities to the attention of their scientists with a view to increasing, where appropriate, national participation in the activities of these international programmes.

18. The Committee:

- (i) Notes with appreciation the first report by ITU on the studies which it has been conducting in response to General Assembly resolution 1721 (XVI) and the interim steps taken by ITU in the field of space communications;
- (ii) Draws to the attention of Member States, for careful study, the various programmes and suggestions of ITU for the improvement of world-wide telecommunications through the use of artificial earth satellites;
- (iii) Encourages all Member States and specialized agencies to take appropriate steps, using to the fullest possible extent the possibilities offered by the technical co-operation programmes, to develop and extend communication systems in various parts of the world so that all States, regardless of the level of their economic and scientific development, will be able to benefit from space communications systems.

19. The Committee:

- (i) Notes with appreciation the first report prepared by WMO in response to General Assembly resolution 1721 (XVI);
- (ii) Recommends that all Member States study carefully the various programmes and suggestions put forward by WMO for the operational and research use of meteorological satellites;
- (iii) Recommends further that all Member States and the specialized agencies concerned take the necessary steps, within the limitations of their financial and other capabilities, to support improvement of the world-wide system for distribution of meteorological information, in anticipation of the imminent availability of meteorological data from satellites, and in anticipation of the need for its effective dissemination and interpretation.

20. The Committee:

- (i) Recognizes the essential need of nations wishing to take part in international co-operative programmes of space research, exploration or use, for scientific and technological assistance, and for additional education and training, both broad and specialized, in science and technology;
- (ii) Recommends, as one way of achieving this, that support be given to the efforts of UNESCO to assist Member States (within the limits of resources available to UNESCO) in the training of scientists and technicians through fellowships at leading observatories and institutions, through arrangements for visits of expert scientists and technicians to developing geophysical and astronomical observatories and through the promotion of exchange and loan of scientific equipment on an international basis, so as to help establish, extend and modernize geophysical and astronomical observatories in geographical areas where a scientific need may exist.

International equatorial sounding rocket launching facilities

21. The Committee:

- (i) Believes that the creation and use of sounding rocket launching facilities (especially in the equatorial region and the southern hemisphere) under United Nations sponsorship would contribute to the achievement of the objectives of General Assembly resolution 1721 (XVI) by greatly furthering international collaboration in space research and the advancement of human knowledge, and by providing opportunity for valuable practical training for interested users;
- (ii) Notes that such facilities would open possibilities for nations which wish to enter the field of space research and would provide opportunities for practical instruction and training in this field, and would also make possible space research by Member States which are unable, because of economic or technological factors, or the unsuitability of their territories, to support sounding rocket programmes except through co-operative efforts, and would also allow States already possessing facilities to conduct research for peaceful scientific purposes in other regions;
- (iii) Notes that the necessary facilities would include a launching site and impact area, buildings, launchers, power, an adequate range safety system, tracking, telemetry, timing equipment and meteorological services, and that additional specialized equipment such as an ionosonde, magnetometer, optical trackers, environmental testing facilities, and a data reduction system, could advantageously be included;
- (iv) Notes also that appropriate sounding rockets would sometimes be essential for the use of the facility by States which do not have them, and that United Nations sponsorship of the facility should help their release for use at the international sounding rocket facilities;

- (v) Requests that Member States consider the possibility of establishing a sounding rocket facility or facilities on the geomagnetic equator in time for the International Year of the Quiet Sun, as a first step in creating and using international sounding rocket facilities under United Nations sponsorship;
- (vi) Suggests the following basic principles for the creation of such international facilities under United Nations sponsorship and states its readiness, should these suggestions be approved, to prepare a charter on the lines of these principles:
- (1) Each sounding rocket launching facility would be the responsibility of the country ("Host State") within whose territory the facility is located.
 - (2) A launching site would be recognized as an international facility if the United Nations Committee on the Peaceful Uses of Outer Space, on considering each case, so recommends, and if the facility conforms to the principles established.
 - (3) The sounding rocket launching facility would be used only for peaceful scientific experiments.
 - (4) The facilities recommended at the site would be indicated by the United Nations Committee on the Peaceful Uses of Outer Space with such advice as it may deem useful.
 - (5) The host State would be responsible for making working agreements with user nations for the provision, through voluntary agreements, of funds or equipment, or both, for the required facilities.
 - (6) Operating costs would be apportioned to the users on an equitable basis.
 - (7) Complete information about all facilities and experiments at the site would be available to scientists and technicians of all Member States. The latter would have the right to inspect these subject, of course, to safety and operational requirements.
 - (8) Results obtained from experiments would be made available through publication in scientific periodicals openly available to all.

(9) The objectives and the tentative schedules of the experiments to be conducted at an international launching site must be previously announced to the United Nations Committee on the Peaceful Uses of Outer Space, COSPAR, and users.

(10) For launchings conducted at the facility, data on the experiments, schedules and firings would be reported by host and user States both to the United Nations Committee on the Peaceful Uses of Outer Space and to COSPAR.

(11) The host State would report periodically to the United Nations Committee on the Peaceful Uses of Outer Space on the operations and use of the sounding rocket launching facility. Continued United Nations sponsorship of the facility would depend upon annual endorsement by the Committee.

(12) An advisory panel composed of scientific representatives of the user States shall be associated with the launching facility to advise on the implementation and scheduling of projects proposed by scientists and on training programmes.

(13) The host State would be responsible for management and operation of the range, including matters of range safety, scheduling, staffing, housekeeping and basic transportation at the site.

(14) On being notified by a proposed host State that it has completed arrangements to establish such a facility, the United Nations Committee on the Peaceful Uses of Outer Space would meet to review the arrangements and assure itself of compliance with the above principles, with a view to recommending to the General Assembly that the facility in question be given United Nations sponsorship. Thereafter, the host State should be free to request technical and other assistance for the facility from all United Nations agencies.

22. The Committee notes the interest of the Government of India, expressed by the representative of India at its 13th meeting, on 13 September, in being the host State for an international equatorial sounding rocket launching facility on the terms proposed by the Scientific and Technical Sub-Committee, on the understanding that the project would be a United Nations project in which the principal Powers concerned would co-operate.

III. REPORT OF THE LEGAL SUB-COMMITTEE ON THE WORK OF ITS FIRST SESSION

23. At its 16th meeting, on 14 September, the Committee approved the following statement:

- (i) By resolution 1721 A (XVI) the General Assembly invited the Committee on the Peaceful Uses of Outer Space to study and report on the legal problems which might arise from the exploration and use of outer space. At the end of its session in March 1962 the Committee, after reporting that many specific proposals and suggestions concerning legal studies had been made by its members, established the Legal Sub-Committee for a detailed study of these problems and in accordance with the responsibilities placed on the Committee by General Assembly resolutions 1472 (XIV) and 1721 (XVI). In accordance with these terms of reference the Legal Sub-Committee considered the general principles and legal problems arising from the exploration and use of outer space.
- (ii) No agreement was reached on any of the proposals submitted to the Sub-Committee. Four of these proposals (annex III, sections A-D) were also presented to the Committee, but after an exchange of views no agreement emerged. A fifth draft proposal was presented on 14 September by the delegation of the United Arab Republic (annex III, section E).
- (iii) The Committee therefore submits the proposals and the records of the meetings of its second session (A/AC.105/PV.10-16) to the General Assembly for consideration.

IV. REGISTRATION

24. In accordance with the provisions of paragraphs 1 and 2 of General Assembly resolution 1721 B (XVI), which call upon States launching objects into outer space to furnish information promptly to the Committee on the Peaceful Uses of Outer Space and request the Secretary-General to maintain a public registry of this information, the Committee has received reports from the USSR and the United States containing registration data concerning objects launched into outer space.
25. A first report was received from the United States on 7 March 1962 covering launchings during the period from February 1958 to February 1962. A first report was received from the USSR on 24 March 1962 covering launchings during the period from October 1957 to March 1962. Subsequent reports provided by the two States containing registration data for launchings after the periods covered by the initial reports have been received by the Committee.
26. The registration information received to date has been circulated in documents A/AC.105/INF.1-16.

ANNEX I

Statement by the Chairman, approved by the Committee at
its 9th meeting, on 29 March 1962

In accordance with the scope of problems put before our Committee by the decision of the General Assembly contained in resolution 1721 (XVI), the Committee has held its meetings during the period from 19 to 29 March 1962. I would like to note with great satisfaction the atmosphere of cordiality and mutual co-operation that prevailed in our Committee during this debate.

The discussion in the Committee stressed again the necessity and possibility of international co-operation in the peaceful exploration and use of outer space, and there was general agreement that such co-operation will contribute substantially to the growth of mutual understanding and consolidation of friendly relations between countries.

In this connexion, I would like to note that in their statements many delegations have expressed deep satisfaction with the exchanges of messages between the Chairman of the Council of Ministers of the USSR, Mr. Khrushchev, and the President of the United States of America, Mr. Kennedy, on the prospects of development of concrete projects in the field of exploration and use of outer space for peaceful purposes.

I would like to state that in the course of our debate the possibility of further co-operation in some fields of exploration and use of outer space has been enhanced.

Many specific proposals and suggestions concerning scientific, technical and legal studies have been made by members of the Committee for the development of international co-operation in the field of space exploration for peaceful purposes.

All such proposals and suggestions are contained in the official records of the Committee.

For a detailed study of these and in accordance with the responsibilities placed on the Committee by General Assembly resolutions 1472 (XIV) and 1721 (XVI), the Committee on the Peaceful Uses of Outer Space is creating a Scientific and Technical Sub-Committee and a Legal Sub-Committee, both composed entirely of members of the Committee.

The Scientific and Technical Sub-Committee will convene for its first session on 28 May 1962 in Geneva.

The Legal Sub-Committee will convene for its first session on the same date in Geneva.

Having in view the permanent responsibilities placed upon the Secretariat of the United Nations by resolution 1721 (XVI) and the forthcoming sessions of the Sub-Committees, the Committee requests the Acting Secretary-General of the United Nations to take steps within the Secretariat to furnish the appropriate technical services necessary for the successful fulfilment of the work of the Committee and of its Sub-Committees.

The Committee notes the substantial role of the specialized agencies - WMO, ITU, UNESCO - and of COSPAR, in the promotion and facilitation of international co-operation in the field of space research for peaceful uses. Representatives of these organizations have been invited to attend the meetings of the Committee in the status of observers and have made helpful statements.

The Committee has arrived at a joint opinion that the aim of its work should be the co-ordination of activities carried out by the specialized agencies and by the governmental and non-governmental organizations in the field of exploration and use of outer space for peaceful purposes, and that the Committee should organize its work so as to assist in the study of measures for the promotion of international co-operation in outer space activities.

The Committee intends, in accordance with resolution 1721 B (XVI), to maintain close contact with governmental and non-governmental organizations concerned with outer space matters and, for this purpose, requests the Acting Secretary-General to prepare and keep current for the Committee a survey of such organizations, together with appropriate information with respect thereto.

The next session of the Committee will be convened in August or September of this year at United Nations Headquarters in New York by the Chairman after consultation with members of the Committee.

ANNEX II

Opening statement by the Chairman, made at the 10th meeting of
the Committee, on 10 September 1962

Since its last session at the end of March the Committee has received four reports: one from each of its two Sub-Committees (A/AC.105/5 and A/AC.105/6), a first report from ITU (E/3645) and a first report from WMO (E/3662).

The Scientific and Technical Sub-Committee, under the chairmanship of Dr. Martyn (Australia), has presented a unanimously agreed report containing recommendations to our Committee, some of which will have to be submitted also to the General Assembly. These recommendations fall under three main headings:

(a) The exchange of information, provided on a voluntary basis, relating to national, regional and international programmes of space research and exploration, and information relating to governmental and non-governmental international bodies active in this field. The recommendations under this heading also refer to the dissemination of available technical data.

(b) The encouragement of international programmes such as the programme for the International Year of the Quiet Sun to be undertaken during the period of minimum solar activity, the World Magnetic Survey, and the programmes for international co-operation in the field of space communications and in satellite meteorology, as well as a programme for scientific and technological assistance, education and training.

(c) International equatorial sounding rocket launching facilities.

The Sub-Committee recommends the creation of an equatorial sounding rocket launching facility or facilities in time for the International Year of the Quiet Sun (1964-1965) as a first step in creating and using international sounding rocket facilities. It also suggests certain basic principles for the creation and operation of such facilities and recommends that our Committee take steps to prepare a charter on the lines of these principles.

May I in this connexion recall to the Committee document A/AC.105/4. It concerns a so-called mobile San Marco platform. The Italian Government has extended an open invitation to all interested Governments to use this platform for joint scientific programmes.

In order to facilitate the work of this Committee with regard to these unanimously agreed recommendations of the Scientific Sub-Committee, the Bureau has submitted a working paper to the Committee containing recommendations.

We note with satisfaction that scientists of the United States and of the Soviet Union, in bilateral talks outside, but related to, the work of the Scientific Sub-Committee, agreed on recommendations to their Governments:

- (1) on the possibilities of co-operation in meteorology - the exchange of data from weather satellites and eventual later co-ordinated launchings of such satellites;
- (2) on a joint effort to map the magnetic field of the earth in conjunction with the International Year of the Quiet Sun, eventually by co-ordinated launching of special satellites.

Further, some aspects of international co-operation with regard to communication satellites were discussed among the scientists.

The Legal Sub-Committee, under the chairmanship of Mr. Lachs (Poland), has reported that its meetings offered the possibility for a useful exchange of views, but that no agreement was reached on any of the proposals which were submitted.

The proposals referred to basic principles governing the activities of States pertaining to the exploration and use of outer space, the rescue of astronauts and space ships making emergency landings, assistance to, and the return of, space vehicles and personnel, and liability for space vehicle accidents. Other legal problems were suggested for future study during the discussion.

It should now be the aim of the Committee to reach agreement on how the Legal Sub-Committee should proceed with its work at its next session.

The first report of the International Telecommunication Union in response to General Assembly resolution 1721 D (XVI) is of an interim nature since many problems related to the use of telecommunications in space have yet to be solved. The report stresses the fact that telecommunication is not only involved and essential in practically all uses of outer space, but that space systems will provide new telecommunication facilities for terrestrial requirements, new meteorological data to be used in improved weather forecasting and new navigational aid facilities for ships and aircraft. The report outlines the

steps being taken by ITU to achieve the widest use of telecommunication in space for peaceful purposes in the interests of all countries. ITU will convene an Extraordinary Radio Administrative Conference at Geneva on 7 October 1963 to examine technical progress in the use of radio communication for space research and the results of technical studies by the International Radio Consultative Committee on subjects such as telecommunication systems between earth stations using earth satellites as relays, direct broadcasting from earth satellites, satellite systems for navigation and meteorology, and radio astronomy.

An important task for this Conference will be the allocation of radio frequency bands for operational earth satellite systems, together with bands for telemetry etc. The ITU report states that no difficulties are envisaged in connexion with organizing satisfactory co-ordination in the field of space, but that until space telecommunication systems are established as reliable and practical telecommunication media with known operating properties and cost structure, it would be too early to plan for their general integration into world-wide networks. I may add that only recently successful telecommunication experiments have been started, such as Telstar.

The ITU report adds that an immediate task in the technical co-operation field would seem to be the survey of needs and the development of domestic facilities of Member countries. ITU is already active in this field of technical co-operation. The report states that at its next session in 1963 the ITU Administrative Council will take any further action which appears necessary and that in the meantime studies concerning space transmission will be carried out by ITU experts.

The Committee has also, in conformity with General Assembly resolution 1721 C (XVI), received a substantive first report of the World Meteorological Organization. WMO believes that the full exploitation of new meteorological data which can be provided now by weather satellites, including the collection of information from automatic terrestrial weather stations by satellites, necessitates an expansion and rearrangement of the present system of conventional meteorological observations through the gradual establishment of a network known as the "World Weather Watch". Organizational and financial arrangements with regard to the establishment of the WWW network are suggested in the WMO report. The system would assist national services by making available to each country meteorological data best suited to its needs.

The report underlines the fact that now, with the introduction of earth orbiting satellites, meteorologists have for the first time a global platform from which to observe the entire earth's atmosphere and to take advantage of the syntheses performed by nature in organizing cloud systems as indicators of air masses, fronts, jet streams, storms, etc. - in short, for observing the processes of world weather events. Such research techniques will also permit further investigation of the causative factors in weather events, such as solar and other external influences, and the heat and radiation balance in relation to circulation in the upper atmosphere. Knowing the details of present weather is the first step in anticipating future weather. Therefore, the continued collection and immediate dissemination of global data as would be provided by the WWW network is a prerequisite to a better understanding of the atmospheric motions and to the ability to forecast the weather for periods in excess of a few days, which would bring substantial economic benefits.

The WMO report states that the preparation of an internationally co-ordinated plan for meteorological satellites will be undertaken by WMO in consultation with the appropriate organizations. The aim would be a global observational coverage twice a day.

The truth is that there are still a great many unknowns in the atmospheric equation and its basic physical forces. Only when these gaps in man's knowledge are filled will it be possible to find a solution to many urgent problems associated with weather prediction, climate changes and large-scale weather modifications. The report warns that the consequences of any large-scale interference with the atmosphere must be accurately evaluated in advance.

Finally, the report mentions with appreciation the assistance rendered in drafting the report by American and Soviet high level scientists as a fine example of goodwill and collaboration which cannot fail to give great satisfaction because very important matters are involved.

We have noted with deep regret the passing away of Dr. Wexler, the Director of Research of the United States Weather Bureau, who was one of the principal authors of the WMO report submitted to our Committee.

In its unanimously adopted resolution of 2 August 1962, the Economic and Social Council expressed its appreciation to WMO and ITU for their reports, the

various suggestions of which merit careful study, and noted with approval that both specialized agencies will continue their activities in their respective fields pertaining to outer space. In addition, the organizations concerned were requested to develop educational and training programmes in space, meteorological and telecommunication technique in response to resolution 1721 (XVI) of the General Assembly. The Economic and Social Council has transmitted the two reports to the General Assembly.

This survey would not be complete without mentioning the recent achievement of a spectacular group flight of two Soviet astronauts which marked universally applauded and definite progress toward man's conquering space.

Lastly, I would like to recall that it was agreed on 19 March among the members of this Committee that it will be the aim of all members to conduct the Committee's work in such a way that the Committee will be able to reach agreement in its work without the need for voting.

I would also like to express the hope that the Committee will preserve the constructive atmosphere which marked the discussions at our first session and will thus avoid any cold-war discussion.

Finally, I should like to quote from a telegram received two days ago from Dr. Martyn:

"In commending the report of the Scientific Sub-Committee to your Committee's attention, may I humbly express the sincere hope that it will be considered in the same spirit of harmonious co-operation manifested at Geneva."

ANNEX III

Proposals presented to the Committee on the Peaceful Uses
of Outer Space at its second session

A

UNION OF SOVIET SOCIALIST REPUBLICS: DRAFT DECLARATION OF THE
BASIC PRINCIPLES GOVERNING THE ACTIVITIES OF STATES PERTAINING
TO THE EXPLORATION AND USE OF OUTER SPACE a/

The Governments of the States whose representatives have signed this
Declaration,

Inspired by the great prospects opening up before mankind as a result of
penetration into outer space,

Recognizing that the peoples of all the countries of the world are
interested in the conquest of outer space,

Desiring to promote broad international co-operation in the exploration
and use of outer space for peaceful purposes,

Taking into consideration United Nations General Assembly
resolution 1721 (XVI) approved unanimously by all the States Members of the
United Nations,

Solemnly declare that in the exploration and use of outer space they
will be guided by the following principles:

1. The exploration and use of outer space shall be carried out for the
benefit and in the interests of the whole of mankind.
2. Outer space and celestial bodies are free for exploration and use by
all States; no State may claim sovereignty over outer space and celestial bodies.
3. All States have equal rights to explore and use outer space.
4. The activities of States pertaining to the conquest of outer space
shall be carried out in accordance with the principles of the United Nations
Charter and with other generally recognized principles of international law
in the interests of developing friendly relations among nations and of maintaining
international peace and security.

a/ Previously issued as A/AC.105/L.2.

3. Commends to the advisory panel for its guidance the following principles:

(a) States or international organizations responsible for the launching of space vehicles should be liable internationally for personal injury, loss of life, or property damage caused thereby, whether such injury, loss, or damage occurs on land, on the sea, or in the air;

(b) A claim based on personal injury, loss of life, or property damage caused by a space vehicle should not require proof of fault on the part of the State or States or international organization responsible for launching the space vehicle in question, although the degree of care which ought reasonably to have been exercised by the person or entity on whose behalf claim is made might properly be taken into account;

(c) A claim may be presented internationally to the State or States or international organization responsible for the launching of a space vehicle causing injury, loss, or damage without regard to the prior exhaustion of any local remedies that may be available;

(d) The presentation of a claim should be made within a reasonable time after the occurrence of injury, loss, or damage;

(e) The International Court of Justice should have jurisdiction to adjudicate any dispute relating to the interpretation or application of the international agreement on liability in the absence of agreement between the States concerned upon another means of settlement;

4. Requests the advisory panel to transmit the draft international agreement to the Legal Sub-Committee at an early date.

E

UNITED ARAB REPUBLIC: DRAFT CODE FOR INTERNATIONAL
CO-OPERATION IN THE PEACEFUL USES OF OUTER SPACE e/

The Committee on the Peaceful Uses of Outer Space,

Having in mind that the Members of the United Nations, according to the Charter, are determined to save succeeding generations from the scourge of war,

e/ Previously issued as A/AC.105/L.6

/...

5. Scientific and technological advances shall be applied in outer space in the interests of a better understanding among nations and the promotion of broad international co-operation among States; the use of outer space for propagating war, national or racial hatred or enmity between nations shall be prohibited.

6. Co-operation and mutual assistance in the conquest of outer space shall be a duty incumbent upon all States; the implementation of any measures that might in any way hinder the exploration or use of outer space for peaceful purposes by other countries shall be permitted only after prior discussion of and agreement upon such measures between the countries concerned.

7. All activities of any kind pertaining to the exploration and use of outer space shall be carried out solely and exclusively by States; the sovereign rights of States to the objects they launch into outer space shall be retained by them.

8. The use of artificial satellites for the collection of intelligence information in the territory of foreign States is incompatible with the objectives of mankind in its conquest of outer space.

9. States shall regard all astronauts as envoys of mankind in outer space and shall render all possible assistance to spaceships and their crews which may make an emergency landing on the territory of a foreign State or on the high seas; spaceships, satellites and capsules found beyond the limits of the launching State shall be returned to that State.

The Governments of the States signatories to this Declaration call upon all the States of the world to accede to it.

B

UNION OF SOVIET SOCIALIST REPUBLICS: DRAFT INTERNATIONAL
AGREEMENT ON THE RESCUE OF ASTRONAUTS AND SPACESHIPS
MAKING EMERGENCY LANDINGS b/

The Governments of,

Recognizing the common interest of mankind in furthering the peaceful uses of outer space,

Wishing to do their utmost to assist the crews of spaceships which may meet with an accident,

Have decided to conclude this Agreement and for this purpose have appointed their representatives who, having exchanged their full powers, found in good and due form, have agreed on the following provisions:

Article 1

Each Contracting State shall render assistance to the crews of spaceships which have met with an accident and shall take steps to rescue astronauts making an emergency landing; to this end it shall employ every means at its disposal, including electronic and optical equipment, means of communication, and rescue facilities of different kinds.

Article 2

A Contracting State which discovers that the crew of a spaceship of another Contracting State has met with an accident shall do its utmost to notify the launching State without delay.

Article 3

In the event of astronauts of a Contracting State making an emergency landing on the territory of another Contracting State, the latter shall immediately inform the launching State of the occurrence and shall take all possible steps to rescue the astronauts making the emergency landing and to render them the necessary assistance.

Article 4

If the astronauts are presumed to have made an emergency descent on the high seas, a joint search for them shall be made, if necessary, by those Contracting States to which the launching State may make application.

Article 5

The assistance to be furnished when necessary by one Contracting State to another Contracting State shall in no way differ from the assistance which could be furnished to its own astronauts.

Article 6

Each Contracting State shall do its utmost to facilitate the early return to their own country of any astronauts of another Contracting State who may make an emergency landing on its territory or who may be rescued on the high seas.

Article 7

Foreign spaceships, satellites and capsules found by a Contracting State on its territory or salvaged on the high seas shall be returned without delay to the launching State if they have identification marks showing their national origin and if the launching State has officially announced the launching of the devices found.

Space vehicles aboard which devices have been discovered for the collection of intelligence information in the territory of another State shall not be returned.

Article 8

The expenses incurred by a State in fulfilling the obligations provided for in articles 6 and 7 of this Agreement shall be reimbursed by the launching State.

Article 9

This Agreement shall be open for accession to all the States of the world.

C

UNITED STATES OF AMERICA: DRAFT PROPOSAL ON ASSISTANCE
TO AND RETURN OF SPACE VEHICLES AND PERSONNEL c/

The General Assembly,

Recognizing that the personnel of space vehicles may from time to time be the subject of accident or experience conditions of distress,

Recognizing that there may occur landings of space vehicles, and their personnel in the case of manned vehicles, by reason of accident, distress, or mistake, or otherwise than as planned,

Believing that in such circumstances the action of States should be governed by humanitarian concern and with a due regard for scientific needs,

c/ Previously issued as A/AC.105/L.4.

/...

Commends to States for their guidance the following principles:

1. All possible assistance shall be rendered to the personnel of space vehicles who may be the subject of accident or experience conditions of distress or who may land by reason of accident, distress, or mistake, or otherwise than as planned;
2. Space vehicles, and their personnel in the case of manned vehicles, that land by reason of accident, distress, or mistake, or otherwise than as planned, shall be safely and promptly returned to the State or States or international organization responsible for launching;
3. Any expense incurred in providing assistance to or return of space vehicles and their personnel shall be borne by the State or States or international organization responsible for launching.

D

UNITED STATES OF AMERICA: DRAFT PROPOSAL ON LIABILITY
FOR SPACE VEHICLE ACCIDENTS d/

The United Nations Committee on the Peaceful Uses of Outer Space,

Recognizing that there may occur personal injury, loss of life, or property damage as a result of space vehicle accidents,

Recognizing that States and international organizations responsible for the launching of space vehicles should be liable internationally for such injury, loss, or damage,

Believing that there should be agreed rules and procedures applicable to such cases,

1. Requests the Secretary-General to constitute a small advisory panel of legal experts drawn from various geographic areas;
2. Requests the advisory panel thus constituted to prepare a draft of an international agreement dealing with the liability of States and international organizations for injury, loss, or damage caused by space vehicles;

Recognizing that it is imperative in the interest of mankind that activities in outer space should be exclusively devoted to the peaceful uses of outer space,

Recognizing further that the General Assembly, in its resolution 1721 (XVI), has urged that the United Nations be a focal point for international co-operation in the peaceful exploration and uses of outer space,

Noting the inter-relationship of the technical and legal aspects of my activity in outer space,

Conscious of the impact of consolidating the efforts of Member States in promoting international co-operation in the peaceful uses of outer space,

Believing that, to reach this end, it is necessary to have as guidance a framework which defines the future of its activities,

I

Decides that the Committee should be guided in its work by the following principles:

1. That the activities of Member States in outer space should be confined solely to the peaceful uses;
2. That in their policies toward outer space Member States should promote international and peaceful co-operation;
3. That Member States bear special responsibility emanating from their obligations to secure the safety of space for astronauts in outer space;
4. That Member States agree to provide every possible assistance to personnel of space vehicles who may be the subject of accident or experience conditions of distress or who may land by reason of accident, distress or mistake;
5. That Member States undertake to return to the State or International organization responsible for launching space vehicles these space vehicles and its personnel;
6. That one of the main objectives in international peaceful co-operation in outer space is to develop special programmes in which the developing countries can participate with a view to promoting world-wide interest in outer space;
7. That Member States agree to make full use of the facilities and experience of all international organizations, specialized agencies and non-governmental organizations, which have activities in outer space;

8. That Member States will exert every possible effort to provide the United Nations Secretary-General, on a voluntary basis, with all information necessary for the promoting of international co-operation in the peaceful uses of outer space;

9. That Member States undertake to give all possible assistance to the United Nations and its affiliated organizations, to undertake joint programmes of training and research to promote science and technology in outer space;

II

Decides to establish a sub-committee to examine the best practical procedure in order to put into practice the aforementioned principles.
