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COMMITTEE ON THE PEACEFUL USES OF OUTER SPACE

VERBATIM RECORD OF THE TWENTY-SEVENTH MEETING

Held at Headquarters, New York, on Wednesday, 28 October 1964, at 10.30 a.m.

Chairman:

Mr. MATSCH

(Austria)

General debate (continued)

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Mr. VINCI (Italy): It is a mignificant coincidence that this Committee meets each year on the recurrence of the month that marked the beginning of the Space Era in 1957, and, every year since then, we have had an opportunity to assess our work against the background of the achievements performed by the technicians, scientists and cosmonaucs of the world in the pursuit of their programmes of peaceful exploration.

This marks the seventh year of the Space Age and there is no end in sight to the long string of tremendous successes schieved by the two leading space Powers, the United States and the Soviet Union.

The orbiting of the Soviet Voskhod spaceship, with its three cosmonauts navigating in an artificially created "shirtsleeves" environment, hundreds of miles above the earth, has evoked the admiration of the whole world. The successes of the American OSO, NIMBUS, SYNCOM and RANGER VII satellites, which have opened new vistas in space science and applications, are other admirable accomplishments in this new spectacular venture of mankind.

It is also encouraging to note that the space competition existing today between the United States and the Soviet Union has not escalated to an "all out" race with a waste of useful energies on both sides, but has been kept under control by the signing of interesting bilateral agreements covering some aspects of the peaceful exploration of outer space. We hope on our side to see these agreements gradually widened to the entire spectrum of space activities, including the manned exploration of the moon and the solar system.

This consideration brings into focus one of the main tasks of this Committee, anely, to express its confidence and expectations, as well as those of all the member countries of the United Nations, in the positive results of the co-operation initiated between the two leading space Powers in the exploration and peaceful uses of outer space in the interest of mankind.

Another important task of this Committee consists of the development of active international co-operation amongst other Member States which, up to three or four years ago, felt that there was no room for others between the massive programmes planned by the United States and the Soviet Union.

(Mr. Vinci, Italy)

Today there are more than thirty countries working in peaceful research and exploration which have tailored their national projects to meet also the needs of international co-operation and which are pursuing a vigorous space educational and training activity in order to make these developments a permanent feature of their national policy.

It is the firm belief of the Italian delegation that, if these early promises of international space co-operation for the peaceful uses of outer space are fulfilled during the next decade, they may prove to be the most powerful cohesive force in bringing the nations of this planet together, not only to explore the far reaches of the universe but also to improve life on earth itself.

While the bilateral agreement between the United States and the Soviet Union has to be considered the main pillar of the emerging structure of international co-operation, several other bilateral agreements have been registered with the Secretariat, each of them contributing its part toward the final goal of a truly global joint venture.

Furthermore, last year, the final organizational touch was given to three multilateral co-operative space initiatives, namely, the ELDO, ESRO and COMSAT organizations: all of them have in common the ultimate objective of premoting the development of one or another specialized activity in the realm of the peaceful exploration and uses of outer space.

(Mr. Vinci, Italy)

I should now like to take this opportunity to clarify the views and the position of the Italian Government with respect to these international initiatives.

Italy has registered with the United Nations Secretariat two bilateral agreements: one with the United States of America for co-operative research related to the San Marco Project, and the second with the Republic of Kenya for its assistance in the operation of the San Marco mobile range in the Indian Ocean, north of Mombasa.

The bilateral co-operation with the United States within the framework of the San Marco project has been extremely successful in training our space scientists and technicians and in advancing the state of the art of Italian space science and technology. The scientific and technical results from the San Marco experiments which have already taken place and which will be performed in the near future should give returns fully worth the efforts made by our two countries, and they will be made freely available to the world's scientific community.

The bilateral agreement with the Republic of Kenya on the operation of the San Marco mobile range is particularly heartening inasmuch as it has enabled, for the first time, one of the developing nations of Africa to play an active role in a large space project.

Italy is also a party to three multilateral agreements for peace space co-operation. The first is the agreement commected with the ELDO organization which aims at the development of European launch vehicles to be used in the peaceful exploration and uses of outer space, as specifically envisaged in its Charter. The second is the agreement related to the ESRO group, which includes a number of very distinguished European space scientists and which has prepared and initiated an impressive programme of peaceful scientific research in space for the next few years. The third is the recent agreement with eighteen other Nations on the operation of a global network of communications satellites known as COMSAT.

Italy fully agrees with the considerations contained in the progress report of COMSAT presented by the United States to this Committee and circulated as a United Nations document. My Delegation is convinced that there are two very important features in this agreement, signed last July by our nineteen Governments.

The first is that, through the initiative, the ingenuity and the sacrifices of the founding members, the trail will be blazed toward the establishment of a rapid and efficient global communications system for the benefit of the entire mankind, since access to it will be open to all. The second is that the agreement not only is open to other countries which might wish to join, but is also temporary and preparatory to a future permanent agreement to be negotiated and signed later in the decade

In addition to her international commitments, Italy has also a steadily developing national programme of scientific space research led by the Universities and the Research Council through several specialized institutes and research centres. Amongst the particularly active are: the Institute of Physiology of the University of Milano, which performs bio-astronautic studies on the effects of zero gravity and magnetic fields on humans and animals; the Institute for Aerospace Propulsion of the same University, which performs research on all modes of aerospace propulsion, including electric rockets and plasma; the Institute of Technical Physics of the University of Naples which undertakes experiments on radio propagation in space and auto-modulation of the ionosphere; the Microwaves Research Centre of Florence which carries out research on antennas for space vehicles, radio-waves propagation; instrumentation for space telemetry and tracking, and on radar tracking of meteor trails; the Centre for Astrophysics, which has inherited the great tradition of the Italian astrophysicists of the past centuries and has amongst its facilities the Arcetri Observatory where Galileo worked in about the year 1640. The Centre includes the four observatories of Arcetri, Asiago, Brera and Monte Porzio.

Recently, another facility has been added to the Centre, namely, the powerful radio telescope "Croce del Sud", near Bologna, slated for deep space studies, which consists of a double cross 1800 feet in length by 108 feet in width and 930 feet in length by 141 feet in width, placed at 118 feet above ground level. This project plans to observe distant galaxies more than 5 million light years away.

Other institutions are: The <u>Centro Studi Fisica dell'Atmosfera</u> (CENTAM) of Rome, which performs studies in the fields of aeronomy, upper atmosphere, solar radiation cloud physics, and energetic particles in the ionosphere by means

of balloons and sounding rocket techniques; The Centro Ricerche Aerospaziali of Rome, which is the leading space research body in Italy and which explores the upper atmosphere and ionosphere by means of several types of sounding rockets and, last but not least, is in charge of the planning, guidance and carrying out of the most ambitious Italian space endeavour, the San Marco project.

The Italian delegation, in accordance with the policy repeatedly expressed by the Italian Government that the San Marco Project is open to all United Nations Members, has kept this Committee and the Scientific and Technical Sub-Committee fully informed of the development of the San Marco programme. I shall, therefore, spare the patience and the time of my colleagues by not going over again the general aims and purposes of this peaceful initiative. At this date, our scientists and technicians have concluded the first phase of the programme, which has achieved successfully all its objectives. Namely, these achievements have proved: (a) that the San Marco satellite and its instrumentation are capable of performing the scientific tasks assigned to them, both in space and on the ground, under severe environmental conditions; (b) that the performance of space launchings from a mobile platform at sea is both feasible and convenient at the Equator; (c) that the Italian personnel conducting the San Marco project has reached a degree of scientific and technical know-how, such as to be able to carry out safely the required complex orbital launchings.

The next phase of the San Marco project, which is already under way, will thus switch from sub-orbital to fully orbital launchings of the San Marco satellite, and this Committee will be kept thoroughly informed of the results we are hoping to achieve.

(Mr. Vinci, Italy)

I now wish to comment briefly on the reports presented by our two sub-Committees.

The Italian experts in the Scientific-Technical Sub-Committee and in the Legal Sub-Committee have actively participated in the work of the two bodies. The Italian delegation wishes to assure this Committee that its members will in the future also make the contribution of their experience to the work of the two Sub-Committees, and I want to confirm once more the interest that my Government confers on the works of our Committee and the hope that the results of its work will be gratifying to the Members of the United Nations.

The Italian delegation wishes to express its particular appreciation for the conclusions arrived at by the Scientific and Technical Sub-Committee. Its recommendations are fruitful and should be implemented.

On the subject of the organization of an international conference on space to be held in 1967 under United Nations auspices, I have listened with the utmost attention to the proposals and ideas submitted here yesterday by the representatives of the Sovict Union and the United States.

I believe that both proposals deserve careful consideration in view of presenting to the world a fitting celebration of the first ten years of space flight. Nevertheless, this aim -- we believe, on our side -- should be attained by avoiding expensive and useless duplications.

However, it appears that for the year 1967 COSPAR has already in store a very busy schedule connected with the reporting and the assessing of the results of the International Geophysical Years, in co-operation with the international scientific unions concerned. The International Astronautical Federation also has its 1967 meeting in the planning stage and so have other international space-minded Organizations, not to mention the United Nations agencies concerned, such as the ITU, the WMO, UNESCO, etc.

To avoid duplication, a major effort of rescheduling and merging the various meetings would probably be required on the part of all these international bodies and, if this is to be accomplished at the request and under the sponsorship of the United Nations, the financial burden of it would fall on the United Nations too.

(Mr. Vinci, Italy)

(Mr. Vinci, Italy)

At the same time it would be useful to establish in advance what the objectives of such an international conference would be in order to ensure the maximum of benefits for all countries.

While there seems to be a general consensus on including all aspects of the peaceful exploration of space in its agenda, such as scientific research and practical applications, juridical problems and social benefits, we consider that it would be equally of some advantage to explore better and define in advance the standard and the educational level of the conference.

The Italian delegation believes that in order to clarify these and other relevant aspects of the proposals, the establishment of a small working group within our Committee could be very useful. The working group could report about its findings at the next meeting of our Committee, in time for the submission of recommendations to the 1965 United Nations Ceneral Assembly.

As expected, the task of the Legal Sub-Committee has not been as easy as that of the Scientific and Technical Committee.

This is understandable because the drafting of the detailed rules drawn from the principles approved last year by the General Assembly in its resolution 1962 is far from being a simple task.

However, the Italian delegation shares the opinion of the Chairman, Prof. Lachs, that good progress has been made in tracing the main lines of future agreements.

On the liability and damages issues, which involve tremendously complex problems and a wide range of opinions, the Sub-Committee has been able to conclude its first review of the matter, and has decided to resume its discussion at its next meeting. The Italian delegation has a keen interest in this topic and looks forward with confidence to a successful conclusion.

On the issue of assistance and rescue of cosmonauts in distress, it appears that a solution is very close at hand, and I am equally confident that the agreement, which the Legal Sub-Committee has come so close to achieving, will be reached in the very near future.

In this context, the Italian delegation has listened with interest to the proposal made by the representative of the Soviet Union of a nuclear-test-ban-type Treaty and believes that, in line with the trend developed during the constructive discussions of the Legal Sub-Committee, it may contribute to the working out of a successful agreement on this issue.

The great German philosopher, Immanuel Mant used to say that two things filled him with wonder and fear: the starry heavens above him and the unlimited spaces within himself. Well, we should hope that by and by, as we advance in our knowledge of the spaces above, we might succeed in fracing man's conscience from the suspicions, the doubts, the prejudices and the mistrust accumulated through centuries of ignorance and hard struggle against the adversities of life and nature.

With the recent development of new and powerful rockets by the United States and the Soviet Union, the next seven years will be even richer in spectagular achievements than the seven years just elepsed.

To be able to act wisely and promptly, in order to facilitate the achievement of bringing the nations of our world together in this widening task of exploration of the universe, this Committee will need the same high inspiration, enthusiasm, understanding and friendly co-operation amongst its members. My delegation will always be ready to act accordingly.

Mr. WALLTHEIM (Austria): Since the last meeting of this Committee, some remarkable progress has been achieved in the field of outer space. In this connexion, the Austrian delegation would like to congratulate the United States for the moon surface photographs and the Soviet Union for its recent successful launching of a spacecraft with three cosmonauts on board.

With regard to the items on our agenda I would like to comment briefly on the reports submitted to the Outer Space Committee.

In the view of the Austrian delegation the report of the Scientific and Technical Sub-Committee is very encouraging. It contains a number of practical and realistic suggestions, and its recommendations were agreed upon unanimously under the able leadership of Mr. Martyn of Australia. This is mainly due to the fact that the spring session of this Sub-Committee was well prepared and documented by the working papers submitted by the Outer Space Affairs Group of the Secretariat in accordance with resolution 1963 (XVIII) of the General Assembly. The Austrian delegation is, therefore, in a position to endorse all the recommendations submitted by the Scientific Sub-Committee.

(Mr. Waldheim, Austria)

In this connexion I should like to stress the importance of the work done by the World Meteorological Organization (WMO) as outlined in the third report of that Organization. When the Scientific Sub-Committee met in Geneva in May 1964 the revised report was not yet available. A careful examination of this report, which has been distributed in the meantime, shows that the activities of the World Meteorological Organization prove to be of increasing importance to the Member States of this Organization. The WMO is already passing from the stage of broad concepts of the use of outer space techniques to the stage of practical and realistic plans and their implementation.

(Mr. Waldheim, Austria)

In its report WMO also underlines the need for a major effort in the field of education and training, and we expect that the Committee on Outer Space will endorse the importance which WMO attaches to this aspect of its activity.

The Austrian delegation is convinced that the programme and activities of WMO represent a valuable contribution to the advancement of outer space technique, and we would therefore like to insert an additional paragraph in the recommendation contained in the report of the Scientific Sub-Committee, which would read as follows:

"Commends WMO for the further development of the World Weather Watch concept and its phased programme of action."

The main aspects contained in the third progress report of the International Telecommunication Union are covered by the recommendations of the Scientific Sub-Committee and do not seem to require further comment.

As to the "Interim Arrangements for a Global Communication Satellite System", which has already been mentioned in our debate, Austria, like many other European countries, has participated in the elaboration of two agreements which we consider to be in conformity with General Assembly resolutions 1721 (XVI) and 1802 (XVII) and the Declaration of Legal Principles governing the activities of States in the exploration and use of outer space. The reason why Austria is participating in this new venture is that the demand for international intercontinental telecommunication services is continuing to grow, and it is expected that the satellite system will serve the increasing volume of international telecommunications traffic. It became obvious in the year 1963 that the present means of intercontinental communications traffic, namely, the undersea telephone cable system and the high frequency radio facilities -- especially between Europe and North America -- were insufficient to meet the growing traffic demands. Therefore, it was necessary -- and that is the purpose of the interim system -to start as soon as possible with arrangements for communication satellite facilities.

We consider the interim satellite system, as established by the two agreements of 24 July 1964, as only a first preliminary step to be followed by a definite treaty for an international global system on a non-discriminatory basis, as provided in article IX of the first Interim Agreement.

(Mr. Waldheim, Austria)

My delegation fully supports the findings of the groups of scientists who have visited the sounding rocket launching facility at Thumba, suggesting the granting of United Nations sponsorship to this Indian station in accordance with General Assembly resolution 1802 (XVII). We should like to take this opportunity of again expressing our gratitude to the Government of India for its efforts in connexion with the establishment of the Thumba launching station and the training facilities provided there in outer space research matters.

The Austrian delegation wishes to refer to an important problem which is mentioned in the Review of the activities and resources of the United Nations, of its specialized agencies and of other competent international bodies relating to the peaceful uses of outer space (A/AC.105/L.12). On page 26 of this Review, referring to the International Civil Aviation Organization, it is said that telecommunication support for the operation of spacecraft transports, particularly for the supersonic and hypersonic man-carrying vehicles intended for routine travel both within and beyond the major portion of the earth's atmosphere, is of considerable interest for the safety and effectiveness of air traffic control. In addition, it is pointed out by ICAO that the use of earth satellites as an extension to current techniques of communication with aircraft and radio navigation service for aircraft offers encouraging possibilities.

In this connexion it should be mentioned that the Administrative Radio Conference of the International Telecommunication Union, which was held in Geneva in October 1963, allocated frequency bands for the specific purpose of radio navigation satellites. ICAO states in this connexion that there now exists the possibility of developing new communication techniques. There is no doubt that an artificial earth satellite can make valuable contributions to the solution of the problem of civil world-wide navigation and traffic control, both at sea and in the air. The objects involved include instantaneous position location with extremely inexpensive equipment and running costs.

In our view, a joint navigation satellite system would, therefore, serve the interests of many countries. Such facilities should be at the disposal of all countries concerned on a non-discriminatory basis and should be used as widely as possible for the benefit of all mankind.

We therefore suggest that ICAO should be invited to study and submit, in consultation as appropriate with other specialized agencies, a report to the Committee on Outer Space on the question of establishing such a navigation satellite system.

Finally, I should like to say a few words concerning the work done by the Legal Sub-Committee and also with regard to the general legal issues in the field of outer space.

The Legal Sub-Committee, which has met twice this year -- first in Geneva, and then in New York -- devoted its work, in accordance with General Assembly resolution 1963 (XVIII), to the elaboration of two draft agreements: one on liability for damage caused by objects launched into outer space, and the other on assistance to and return of astronauts and space vehicles.

The Austrian delegation wishes to express its appreciation of the progress aclieved under the skillful guidance of its Chairman, Professor Lachs. Although it has not been possible successfully to complete the draft convention on assistance and return, substantial agreement has been reached on many points and it is to be expected that the Legal Sub-Committee will be able to settle the remaining open points at its next session.

With regard to the draft agreement on liability for damage caused by objects launched into outer space, the Austrian delegation is of the opinion that the discussion of the principles of such an agreement has been most fruitful -- and this despite the difficult legal problems stemming from the complexity of the legal matter concerned.

The Austrian delegation would appreciate the early adoption of these two draft conventions. In addition my delegation would be pleased if our Committee, and especially the Legal Sub-Committee, would consider which of the other legal principles contained in General Assembly resolution 1962 (NVIII) could be incorporated in international agreements.

Furthermore, we think that we should continue to study other legal problems related to outer space which so far have not been embodied in the Declaration of Legal Principles in outer space. In our view, the Declaration of Frinciples which was adopted last year should not be considered as a final document closing the door to the elaboration of further principles.

(Mr. Waldheim, Austria)

The Austrian delegation strongly favours the principle that outer space should be used exclusively for peaceful purposes. As long as countries remain free de facto to engage in military ventures in outer space, the regrettable possibility of an armament rate in outer space continues to exist. In the interests of mankind we should, therefore, do our utmost to prevent such a possibility and to reserve the tremendous potential applications in the field of outer space for the benefit of the international community.

BES/el

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The CHAIRMAN: The Chair would like to draw the attention of Committee members to the fact that the report of the Legal Sub-Committee on the work of the second part of its third session, document A/AC.105/21 and Add.1, was distributed this morning in English and French and will be followed in the other two working languages in the next days.

Also the progress report on interim arrangements for a global commercial communications satellite system, document A/AC.105/22, submitted by the United States delegation in association with other delegations, was distributed this morning in English and will be distributed in the other working languages in the next few days.

There are no further speakers for this meeting and there are no speakers for this afternoon. We shall therefore have to cancel this afternoon's meeting. We have a number of speakers inscribed on the list for tomorrow and the days following. The Chair would like to make an appeal to those members who have not yet inscribed their names on the speaker's list to do so as soon as possible.

The meeting rose at 11.25 a.m.