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Committee on the Peaceful Uses of Outer Space

Unedited transcript

538th Meeting
Friday, 10 June 2005, 10 a.m.
Vienna

Chairman: Mr. A. A. Abiodun (Nigeria)

The meeting was called to order at 10.16 a.m.

The CHAIRMAN: Good morning distinguished delegates and representatives, I now declare open the 538th meeting of the United Nations Committee on the Peaceful Uses of Outer Space.

This morning we will continue and conclude our consideration of agenda item 4, General Exchange of Views, and agenda item 5, Ways and Means of Maintaining Outer Space for Peaceful Purposes.

Thereafter, we will begin our consideration of agenda item 6, Implementation of the Recommendations of UNISPACE III, and item 7, Report of the Scientific and Technical Subcommittee on its Forty-Second Session.

Time permitting, we will begin our consideration of agenda item 8, Report of the Legal Subcommittee on its Forty-Fourth Session.

At the end of this morning's meeting, there will be a presentation on "Archaeology from Space", by Mr. Sakata of Japan. This presentation is being made within the context of the Symposium on "Space and Archaeology", which will be held on Monday.

I would like to remind delegates that the Action Team on the Environmental Monitoring Strategy is currently meeting in Conference Room VII and will there be until noon today.

General exchange of views (agenda item 4)

Distinguished delegates, I would now like to continue and conclude our consideration of agenda item 4, that is General Exchange of Views.

Is there any other delegation wishing to speak under this item?

Any other delegation wishing to speak on agenda item 4?

I see none.

I, therefore, call on the observer from EURISY, Mr. Jean Bruston, to please address the Committee.

I understand that Mr. Bruston is on his way from the Printing Room to get his paper so just bear with us for five seconds, I am told. Can somebody please go and fetch him.

Agenda item 4 suspended

Ways and means of maintaining outer space for peaceful purposes (agenda item 5)

Distinguished delegates, with your permission, I suspend agenda item 4 and we can continue, therefore, with our deliberations this morning and, therefore, declare open our deliberations on agenda item 5, Ways and Means of Maintaining Outer Space for Peaceful Purposes.

I now call on the distinguished representative of China, Ms. Wang Dong, to please address the Committee.

Ms. D. WANG (China) *(interpretation from Chinese)*: Thank you Mr. Chairman. I am very pleased to see

In its resolution 50/27 of 6 December 1995, the General Assembly endorsed the recommendation of the Committee on the Peaceful Uses of Outer Space that, beginning with its thirty-ninth session, the Committee would be provided with unedited transcripts in lieu of verbatim records. This record contains the texts of speeches delivered in English and interpretations of speeches delivered in the other languages as transcribed from taped recordings. The transcripts have not been edited or revised.

Corrections should be submitted to original speeches only. They should be incorporated in a copy of the record and be sent under the signature of a member of the delegation concerned, within one week of the date of publication, to the Chief, Conference Management Service, Room D0708, United Nations Office at Vienna, P.O. Box 500, A-1400, Vienna, Austria. Corrections will be issued in a consolidated corrigendum.

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you preside our meeting today. I would like to make the following statement on item 5 on behalf of the Chinese delegation.

Mr. Chairman, the General Assembly, in its resolution 59/115 of 2004, requested this Committee to continue to consider, as a matter of priority, ways and means of maintaining outer space for peaceful purposes and to report thereon to the General Assembly at its sixtieth session. This demonstrated not only the great importance that the world community attaches to this issue but also the practical significance in discussing it.

Mr. Chairman, mankind has so far achieved great successes in the exploration and peaceful uses of outer space which have significantly promoted the economic, scientific and social development and progress of all countries. On the other hand, however, mankind is now confronted with tough challenges in the field of the peaceful use of outer space such as the ever-increasing military use of outer space, the rising danger of weaponization of outer space and ongoing weapon research and testing in outer space.

All these activities run counter to the Principles for the Peaceful Use of Outer Space, as enshrined in the 1969 Treaty on Outer Space and are in stark contradiction with the Space Millennium Declaration adopted by UNISPACE III. They will not only pose serious threats to the peaceful exploration, development and use of outer space by mankind, but will also cause an extremely negative impact on world security and will constitute a major obstacle to building a peaceful, secure and a thriving international community.

Mr. Chairman, with regard to the argument that the issue of disarmament of outer space could be better handled by the Conference on Disarmament and the First Committee of the General Assembly, we do not see it as an entirely convincing argument. It is the natural responsibility of the COPUOS to express concern about the non-peaceful use of outer space and it is the natural aspiration and wishes of the peace-loving countries and peoples of the world to prevent the use of outer space for non-peaceful purposes. Therefore, it is only logical and natural that this Committee, while exploring ways and means to use outer space for the benefits of mankind, should also discuss measures aimed at preventing outer space from being used to the detriment of mankind.

Mr. Chairman, the Chinese Government has always maintained that the ultimate goal in the exploration and peaceful use of outer space should be to promote the social development and human progress and to create a better environment for the survival and development of mankind.

The Chinese Government has always supported and actively participated in all the efforts for the peaceful use of outer space and is opposed to the militarization and the weaponization of outer space. We see the prevention of an arms race in outer space as the basic condition and a prerequisite for promoting international cooperation in outer space. We hope that this Committee will redouble its efforts to prevent weaponization of and an arms race in outer space. Such efforts should also include discussion as to how to build up an effective legal mechanism in this regard.

Mr. Chairman, in our view, although a comprehensive and effective international legal mechanism against the militarization of outer space is yet to be established, the complete de-militarization of outer space does represent, without any doubt, the direction of progress of human society as well as the direction of future development of space law. Therefore, all countries should continue to work towards this direction.

At present, we can use various means to prevent the risk of outer space weaponization and promote the de-militarization of outer space by, for example, concluding, through negotiation, international agreements against an arms race in outer space and strengthening communication and cooperation with the Conference on Disarmament, etc.

Mr. Chairman, China is ready to join hands with all the peace-loving people of the world in making unremitting efforts to reach international treaties and agreements on the peaceful use of outer space in an early date and to create a peaceful, tranquil and secure outer space.

Thank you Mr. Chairman.

The CHAIRMAN: I thank the distinguished representative of China for her statement.

Distinguished delegates, that was the only delegation that indicated its willingness to address this subject this morning.

Do I have any other delegations wishing to take the floor on this subject, agenda item 5, Ways and Means of Maintaining Outer Space for Peaceful Purposes?

If I see none, do I take it that we have concluded our consideration, as well as deliberation, on agenda item 5?

It is so decided.

Agenda item 4 resumed

General exchange of views (agenda item 4)

With your permission, I would like to go back to agenda item 4 and invite the distinguished representative of EURISY, Mr. Bruston, to add the house. Mr. Bruston, you have the floor.

Mr. Jean BRUSTON (EURISY): Mr. Chairman, I am taking the floor as the new Secretary-General of EURISY, following in this function Valerie Hood who, you may recall, has served EURISY for many years.

This year, EURISY has lost its founder, Professor Hubert Curien, internationally-renowned Minister of Research and President of the Academy of Science of France, one of the most prominent leaders in anchoring space in governmental and research policies in Europe and worldwide. You will all remember his contribution to the founding of the European Space Agency and his fundamental role in shaping the relationship between space and society. We were all greatly saddened by his sudden death that, coincidentally occurred a few days before EURISY awarded the very first Hubert Curien prize to Gabriel Lafferranderie, a personality also well known in COPUOS circles.

Since its creation by Mr. Curien in 1989, with the aim of promoting the benefits of space to European society, EURISY has expanded its partnerships, now including 40 governmental space offices and space agencies, international organizations like UNESCO and FAO, research institutions and private business. With the end of the Cold War, Eastern European space agencies joined and made a significant contribution to EURISY's work with new initiatives. Originally limited to European partners, EURISY's programme now benefits also from Latin American and African institutions as members of EURISY.

One could well argue that EURISY's institutional development reflects the emergence of global governance structures in other institutions including in the United Nations. The cooperation between governmental, intergovernmental, non-governmental and business institutions has given EURISY its particular capacity to explore the outer reaches of space policy and the concrete challenges of space technology applications.

This particular composition of EURISY's membership and the related capacities qualify EURISY in a special way to critically analyze the contribution of space to the broader policy frameworks of the challenges of global change. It is in this direction that some of the new contributions of EURISY to our shared discourse may lie.

Allow me to mention here that we have just invited our members to share in a brain-storming exercise about the new focal point of EURISY's role in strengthening the bridges between space and society.

In order for you to understand the spectrum of our current activities, allow me to briefly mention the main projects undertaken within the framework of its 2005 general programme.

In 2005, EURISY is organizing five conferences with the specific aim of fostering discourse and perceptions of capacities and needs between users, on the one hand, and the space community on the other.

We held a first Symposium called "Symposium on New Space Services for Maritime Users: The Impact of Space Technology on Maritime Legislation". This Symposium took place in UNESCO Headquarters in Paris on 21 to 23 February 2005 and was attended by more than 120 participants. It was organized with the support of ESA, EUMETSAT, UNESCO, CNES and EADS. The Conclusions and Recommendations are available on the EURISY website.

We are organizing an upcoming Conference called "Benefits from Space for Sectorial Policy for High Mountain Security". This Conference will take place in Geneva, Switzerland, on 8 and 9 September. The Conference will focus on the role and benefits of space technology and applications for civil protection, disaster mitigation, management and rehabilitation as well as infrastructure protection in the fields of transport, telecommunications and energy.

The third Conference for 2005 is called "Public, Private Partnership and Galileo System Operation: Chances for SMEs?". It will take place in Prague, the Czech Republic, on 3 and 4 November. The Conference shall address the objectives of supporting the integration of the 10 new European

Union members to Galileo and the transition from application development to commercial development.

The fourth Conference is called "Use of Space Technologies for the Conservation of Natural and Cultural Heritage". It is the very first event organized by EURISY in Latin America. It is co-organized by UNESCO. It will take place in Campeche in Mexico from 28 November to 1 December and shall demonstrate the importance of aerial and space technologies in the conservation and promotion of natural and cultural heritage.

The last Conference is on the "Integration of New EU Member Countries into the GMES Programme". It will take place in December in Warsaw, Poland.

The exact programme for all these conferences are obviously available on the EURISY website.

As I already mentioned, the Hubert Curien Award was granted this year for the first time and handed to Dr. Lafferranderie during a festive ceremony at UNESCO Headquarters in Paris.

Thank you Mr. Chairman.

The CHAIRMAN: I thank Mr. Bruston for his statement and, distinguished delegates, as you heard him, the distinguished Professor from France, Professor Curien, passed away this year. I am sure many members of this Committee knew Professor Curien personally. I personally first met him, I think, in 1992, as we were preparing for the International Space Year. So, on behalf of the Committee, I would like to convey the sympathy and condolence of the Committee first to France, where he was, a distinguished citizen, a distinguished scientist, an innovator of the first kind, and also the EURISY, which he founded and pioneered and nurtured until its current level of maturity. So, on behalf of this Committee, I would like France and EURISY to please accept our sincere condolence on behalf of Professor Curien, as well as EURISY as well. Thank you very much.

Sir, France, you have the floor.

Mr. J.-Y. TREBAOL (France) *(interpretation from French)*: Thank you Mr. Chairman, on behalf of the French delegation, I would like to thank you for your tribute you just paid to my colleague. Thank you.

The CHAIRMAN: Distinguished delegates, do we have any other delegation wishing to speak on agenda item 4?

I see none.

Can I, therefore, take it that that ends our consideration of agenda item 4 at this forty-eighth session of COPUOS?

It is so decided.

Implementation of the recommendations of UNISPACE III (agenda item 6)

Distinguished delegates, I now open the floor for the consideration of agenda item 6, Implementation of the Recommendations of UNISPACE III.

All of us will recollect in the General Assembly resolution 59/2, that the General Assembly agreed that the Committee should continue to consider at its future sessions, starting with the current forty-eighth session, the implementation of the recommendations of UNISPACE III until the Committee considers that concrete results have been achieved.

In that same resolution, the Assembly requested the Committee to examine the contributions that could be made by space science and technology and their applications to one or more of the issues selected by the Commission on Sustainable Development as a thematic cluster and to provide substantive inputs for consideration by the Commission.

The Assembly also requested the Committee to review at this current session progress made in the work of the Ad Hoc Expert Group that was conducting a study on the possibility of creating an international entity to provide for coordination and the means of realistically optimizing the effectiveness of space-based services for use in disaster management. And, as I have previously indicated, the Ad Hoc Expert Group will meet on Monday, 13 June, and will provide its progress report to the Committee later next week.

At its forty-second session earlier this year, the Scientific and Technical Subcommittee endorsed the recommendation of its Working Group of the Whole that the Committee should consider how and by what mechanism it could contribute to the High Level Plenary Meeting of the sixtieth session of the General Assembly in September. I will provide some background information when we deal with this issue.

In the meantime, I would like to refer to the list of speakers under this agenda item number six and the first speaker on my list is the distinguished representative of Nigeria, Mr. Jerome Ologun, who is the Director of the Remote Sensing Centre of the Nigerian Space Agency. Mr. Ologun, you have the floor.

Mr. J. A. OLOGUN (Nigeria): Mr. Chairman, the United Nations Conference on the Exploration and Peaceful Uses of Outer Space, UNISPACE III, held in Vienna in 1997, will remain a watershed in the annals of space activities for most nations that participated in this historic event. The result of this Conference was unanimously adopted by participating countries, which included Nigeria, and was endorsed by the General Assembly in its resolution 54/68 as the Vienna Declaration on Space and Human Development.

UNISPACE III could only have been remembered as only an event but for the 33 recommendations, particularly the several Action Teams agreed upon by Member States for the implementation of these recommendations. Nigeria is not only actively involved in some of these Action Teams but she is serving as Action Team Leader, on behalf of Africa, in the implementation of recommendation 11, "Promote Sustainable Development by Using the Results of Space Research". Sufficient progress has been recorded by most of these Action Teams towards the full implementation of the recommendations of UNISPACE III. Although further work is needed for any meaningful implementation of the recommendations by the Action Teams.

There is, however, general willingness on the part of the Chairperson and members of these Action Teams to meet these challenges.

Mr. Chairman, my delegation has noted that the period of the meetings of these Action Teams are usually arranged to coincide with meetings of COPUOS and its Subcommittees which often is not sufficient for the desirable results. Opportunities should be explored, including periods of other activities of COPUOS such as workshops and seminars that would be beneficial to hasten and strengthen the work of the Action Teams.

In this connection, my delegation wishes to express her appreciation to Member States that have supported and continued to support various team leaders without which they could not have succeeded in carrying out their outstanding tasks. We hope that this spirit of supporting their representatives who are our team leaders will be sustained.

Mr. Chairman, the tsunami that occurred in South-East Asia and the Philippines in December 2004 has brought to the glare, the role of global efforts in disaster management as exemplified by the DMC and similar regional and national space programmes. These entities contributed immensely, particularly in providing free satellite data in support of relief and humanitarian efforts in the event of the tsunami disaster.

My delegation fully supports the interim recommendation as contained in the report of the Scientific and Technical Subcommittee to COPUOS for the establishment of an international entity for the coordination and for optimizing the effectiveness and timeliness of space-based services for use in the event of any disaster.

Thank you Mr. Chairman.

The CHAIRMAN: I thank the distinguished representative of Nigeria for his statement on agenda item 6.

And the next speaker on my list on agenda item 6 is Dr. Suresh of ISRO. Sir, you have the floor.

Mr. B. N. SURESH (India): Thank you Mr. Chairman. Mr. Chairman, the review by the United Nations General Assembly last year of implementation of the recommendations of the UNISPACE III is an important milestone in our activity. The report submitted by our Committee for the review summarized very well the work carried out by us in this area and our resolve to pursue further the implementation of the recommendations. The last chapter of the document "The Way Ahead" is very important for us for the future activity. The appreciation expressed by the United Nations General Assembly for the work conducted by the Committee, its subsidiary bodies and the Office for Outer Space Affairs is a good recognition for our efforts.

The Indian delegation specifically noted the agreement of the United Nations General Assembly to our recommendation on the study to be conducted on the possibility of creating an international entity to provide for coordination of space-based services for disaster management support. We also noted the last paragraph of the United Nations General Assembly resolution in which it mandated our Committee to review the implementation of UNISPACE III

recommendations, starting with this session, until the Committee considers that concrete results are achieved.

Mr. Chairman, one of the primary objectives of UNISPACE III was to strengthen the capabilities of Member States, especially developing countries, to use the results of space research for economic and cultural development. Today, the developing countries face a number of challenges in terms of improving their agriculture, water resources management, eradicating illiteracy and providing better education to their populations and in improving public health services. Services based on space systems can effectively address all these challenges. Hence, implementation of UNISPACE III recommendations will directly enable and assist the developing countries in meeting their challenges. In this context, the practical actions defined by the Action Teams have to be implemented to really achieve the concrete results which will benefit the developing countries.

In this connection, we fully support the recommendation of the Working Group of the Whole of the Scientific and Technical Subcommittee to focus its discussion on the implementation of three actions called for in the Plan of Action identified in our report to the United Nations General Assembly, that is, maximizing the benefits of existing space capabilities for disaster management and maximizing the benefits of the applications of Global Navigation Satellite Systems and enhancing capacity-building in space-related activities.

Mr. Chairman, the recent natural disasters once again reminded us of the necessity of a system which can address disaster management support using space systems and the space-systems-based services. The Indian delegation is satisfied at the establishment of the Ad Hoc Expert Group and the detailed work carried out by the Group on various aspects of establishing the Disaster Management International Space Coordination Organization, DMISCO for short, as recommended by the Action Team 7. The study carried out by the Group addressed all phases of the disasters, like the pre-disaster preparedness with databases on the countries and regions which face recurrently some natural disasters like floods, forest fires, earthquakes, etc. We also noted the special efforts of the Ad Hoc Expert Group to address on how to maximize the efforts of the existing mechanisms. The Indian delegation is prepared to participate in further discussions on the report of the Ad Hoc Expert Group, especially with reference to avoiding duplication of the work being carried out by other organizations in the area of disaster management.

The International Charter on Space and Major Disasters is a concrete initiative and has contributed to support disaster assessment and relief activities since its inception. It is particularly gratifying to note that the Charter had been activated 19 times during the last one year and it provided support in each case. The Charter deserves full support from the United Nations, Member States and other organizations which are in a position to contribute to the goals of the Charter.

A global system covering support during all phases of disaster using space systems and also covering all types of services which space systems can offer will be very useful for all the countries. In this connection, we are prepared to look at various models, including models to finance the new initiative to serve the end goals in an efficient manner.

Our Committee had a lot of expectations a few years back to involve private industry, through their contributions to the Trust Fund, in implementing UNISPACE III recommendations. We still feel there is scope to encourage the private industry to contribute to our initiatives, once each of them are brought into shape of a clear-cut project.

Mr. Chairman, the Indian delegation is prepared to participate and contribute actively to the discussions and activities under the agenda of implementation of UNISPACE III recommendations with the aim of progressing towards achieving concrete results in this area.

Thank you Mr. Chairman.

The CHAIRMAN: I would like to thank you Dr. Suresh of India for your contribution to our debate on agenda item 6 on behalf of India.

Is there any other delegation wishing to speak under this agenda item, item number 6, this morning?

I see none.

We shall, therefore, continue our consideration of agenda item 6, Implementation of the Recommendations of UNISPACE III, this afternoon.

Report of the Scientific and Technical Subcommittee on its forty-second session (agenda item 7)

Distinguished delegates, I would now like to begin our consideration of agenda item number 7, Report of the Scientific and Technical Subcommittee on its Forty-Second Session.

I understand that Ambassador Dumitru Dorin Prunariu of Romania, the Chairman of the Scientific and Technical Subcommittee, would like to make a brief report on the work of the Subcommittee at its forty-second session earlier this year. I, therefore, now give the floor to Ambassador Prunariu. Sir, you have the floor.

Mr. D. D. PRUNARIU (Romania): Thank you Mr. Chairman. Mr. Chairman, distinguished delegates, I have the honour to introduce you to the work done by the Scientific and Technical Subcommittee at its forty-second session, as contained in the report, document A/AC.105/848.

The Scientific and Technical Subcommittee at its forty-second session considered substantive items in accordance with paragraph 13 of General Assembly resolution 59/116. The report contains a review of the United Nations Programme on Space Applications and its activities for 2004 and 2005, as described in document A/AC.105/848, paras. 31-42. The Subcommittee recommended the approval of the proposed programme of activities for the remainder of 2005. The Office for Outer Space Affairs already briefed the Committee on the proposed activities for 2006.

In accordance with paragraph 16 of General Assembly resolution 59/116, the Subcommittee considered the United Nations Programme on Space Applications, through its Working Group of the Whole, and endorsed the recommendations of the Working Group on the Programme, document A/AC.105/848, paragraph 30 and Annex I, paragraphs 3 and 4.

In accordance with the resolution 59/116 of the General Assembly, the Committee continued to consider a report on the activities of the international satellite system for search and rescue as a part of its consideration of the United Nations Programme on Space Applications and invited Member States to report on their activities regarding the system.

The deliberations of the Scientific and Technical Subcommittee on the item “Implementations of the Recommendations of the Third United Nations Conference on the Exploration and Peaceful Uses of Outer Space – UNISPACE III” are reflected in its report, A/AC.105/848, paragraphs 54-73, see also the annotations(?) for agenda item 6 above. In accordance with paragraph 16 of General Assembly resolution 59/116, the Subcommittee requested the Working Group of the Whole to consider this issue.

The Subcommittee endorsed the recommendations of the Working Group concerning implementation of the recommendations of UNISPACE III, document A/AC.105/848, paragraph 54 and Annex I, paragraphs 5-14.

The deliberations of the Scientific and Technical Subcommittee on the item “Matters Relating to Remote Sensing of the Earth by Satellites Including Applications for Developing Countries and Monitoring of the Earth’s Environment” are reflected in its report, A/AC.105/848, paragraphs 75-84.

The Scientific and Technical Subcommittee considered the item “Space Debris” in accordance with the Work Plan adopted at its thirty-eighth sessions. The deliberations of the Subcommittee are reflected in its report, A/AC.105/848, paragraphs 86-107. Pursuant to paragraph 17 of General Assembly resolution 59/116, the Subcommittee reconvened the Working Group on Space Debris to consider, as necessary, the proposals of the Inter-Agency Space Debris Coordination Committee on Space Debris Mitigation and any related comments that might be received.

The Subcommittee endorsed the recommendations of the Working Group, as contained in its report, A/AC.105/848, paragraph 95 and Annex II. The Working Group agreed that to begin its intersessional work, the Working Group on Space Debris should hold an intersessional meeting from 13 to 16 June 2005, during this forty-eighth session of the Committee.

The Scientific and Technical Subcommittee considered the item “Use of Nuclear Power Sources in Outer Space” under the Work Plan adopted at its fortieth session, document A/AC.105/804, Annex III. The deliberations of the Subcommittee on this item are reflected in its report, A/AC.105/848, paragraphs 109-125. Pursuant to paragraph 18 of General Assembly resolution 59/116, the Subcommittee, at its forty-second session, reconvened its Working Group on the Use of Nuclear Power Sources in Outer Space. The report of the work of the Working Group was endorsed by the Subcommittee in accordance with document A/AC.105/848, paragraph 123 and Annex III.

The Subcommittee endorsed the recommendations of the Working Group that it should continue intersessional work on the topics described in the multi-year Work Plan, as amended by the Subcommittee in the document A/AC.105/848, Annex III, paragraph 8, and noted that the Working Group had agreed to hold its intersessional meeting in Vienna during this forty-eighth session of the Committee. The

Subcommittee also agreed that the Working Group should discuss the documents identified in paragraph 13 of the report of the Working Group, as well as the preliminary list of potential topics for the Joint Technical Workshop on Nuclear Power Sources in Outer Space, refer to in paragraph 10 of the report of the Working Group.

The Scientific and Technical Subcommittee continued its consideration of the item "Space-System-Based Tele-Medicine" in accordance with the Work Plan adopted by the Committee at its forty-sixth session. The deliberations of the Subcommittee on the item are reflected in its report, document A/AC.105/848, paragraphs 127-138.

The Scientific and Technical Subcommittee considered the item "Near-Earth Objects" in accordance with a three-year Work Plan adopted at its forty-first session, as contained in document A/AC.105/823, Annex II, paragraph 18. The deliberations of the Subcommittee on this item are reflected in its report, document A/AC.105/848, paragraphs 140-153.

The Scientific and Technical Subcommittee considered the item "System-Based Disaster Management Support" in accordance with a three-year Work Plan adopted at its forty-first session, document A/AC.105/823, Annex II, paragraph 15. The deliberations of the Subcommittee on this item are reflected in its report, document A/AC.105/848, paragraphs 155-173.

The Scientific and Technical Subcommittee continued its consideration of the agenda item "Examination of the Physical, Natural and Technical Attributes of the Geostationery Orbit and of its Utilization and Applications Including, *Inter Alia*, in the Field of Space Communications As Well as Other Questions Relating to Developments in Space Communications, Taking Particular Account of the Needs and Interests(?) of Developing Countries" as a single issue item for discussions. The deliberation of the Subcommittee on the item are reflected in its report, A/AC.105/848, paragraphs 175-180.

The Scientific and Technical Subcommittee considered the agenda item "Support to Proclaim the Year 2007 'International Geo-Physical and Heliophysical Year" as a single issue item for discussion. The deliberations of the Subcommittee of the item are reflected in its report, A/AC.105/848, paragraphs 102-192.

With regard to the draft provisional agenda for the forty-third session of the Scientific and Technical Subcommittee, in accordance with paragraph 16 of General Assembly resolution 59/116, the Scientific and Technical Subcommittee requested its Working Group of the Whole to consider it for its forty-third session.

The Subcommittee endorsed the recommendations of the Working Group of the Whole concerning the draft provisional agenda, as contained in its report, document A/AC.105/848, paragraph 194 and Annex I, paragraph 23.

The Working Group of the Whole recalled the agreement to continue to practice of alternating each year the organization of the Symposium by the Committee on Space Research, COSPAR, and the International Astronautical Federation, IAF, with a Symposium to Strengthen the Partnership with Industry. The Working Group of the Whole agreed that, in 2006, the Symposium to Strengthen the Partnership with Industry would be organized, and the Symposium by COSPAR and IAF would be suspended. The Working Group of the Whole recommended that the next Symposium to Strengthen the Partnership with Industry should address synthetic aperture radar missions and their applications. The Working Group of the Whole also agreed that the Symposium should be held on the afternoon of the first day of the forty-third session of the Subcommittee and that the full time available to the Subcommittee on that afternoon should be used for the Symposium. It is contained in document A/AC.105/848, Annex I, paragraphs 24 and 25.

Mr. Chairman, distinguished delegates, I take this opportunity to thank again the delegates at the forty-second session of the Scientific and Technical Subcommittee for their consistent contributions to the work of the Subcommittee and as well I thank the Secretariat for the very professional assistance to the Chair of the Subcommittee.

Thank you Mr. Chairman.

The CHAIRMAN: I thank Ambassador Prunariu of Romania and Chairman of the Scientific and Technical Subcommittee for his statement on the work of the Scientific and Technical Subcommittee at its forty-second session.

Now, distinguished delegates, I now give the floor to Ms. Alice Lee, Chief of the Space Applications Section of the Office for Outer Space Affairs and the Expert on Space Applications. She will brief the

Committee on the activities of the United Nations Programme on Space Applications.

Ms. Lee, you have the floor.

Ms. A. LEE (United Nations Expert on Space Applications, Office for Outer Space Affairs): Thank you Mr. Chairman and distinguished delegates, thank you very much for the opportunity to address the Committee on the activities of the United Nations Programme on Space Applications.

Congratulations on your successful leadership of this Committee. Together with my colleagues in the Space Applications Section, I look forward to assisting you in implementing the activities of the Plan of Action in COPUOS' report to the General Assembly regarding implementation of the recommendations of UNISPACE III.

We have identified the actions and areas in which the Programme on Space Applications, and the Office in general, can provide meaningful assistance, particularly in the areas that are proposed in Chapter VI, paragraphs 228-316, of the Plan of Action.

I would like to express my gratitude to the Ad Hoc Expert Group that is studying the possibility of creating an international entity to coordinate and optimize the effectiveness of space-based services for use in disaster management. I would also like to thank the Action Teams that are continuing their diligent efforts in defining concrete steps and plans for implementing the UNISPACE III recommendations. These include the Action Team on Global Navigation Satellite Systems, which is considering ways to establish an International Committee on GNSS, as well as the Action Teams on the Environmental Monitoring Strategy, Weather and Climate Forecasting, Knowledge-Sharing, Sustainable Development, Public Health, and Near-Earth Objects.

The Space Applications Section is successfully conducting the diverse range of activities set forth in the United Nations Programme on Space Applications in 2005 and is laying the foundations for activities planned for 2006. The Section has also been supporting the implementation of the agreements reached at the forty-second session of the Scientific and Technical Subcommittee. Our efforts focus on the priority thematic areas with specific topics addressing sustainable development for developing countries. Our near-term and mid-term objectives are achieved through activities that produce tangible results in developing countries. Our success in meeting these objectives depends upon support from many partners. We rely on the financial and technical resources contributed by many Member States in developing programmes and activities that encourage local support for the sustainable and operational use of space technologies.

The priority themes of the Programme on Space Applications are the use of space technology for disaster management, tele-medicine and tele-education, monitoring and the protection of the environment and natural resources management, as well as basic space science education and capacity building.

The space technologies currently employed within these themes are: global navigation satellite systems; satellite communications; remote sensing applications; Earth observation; and meteorological satellites. The Programme is open to investigating new applications and use of new space technologies to support the priority thematic areas whenever possible.

Within the priority themes, we introduce space technologies to educators and decision makers, stimulate discussions to identify the regional needs and explore the possibilities of creating solutions using space technologies, and assist regions in launching pilot projects that utilize space technology applications and meet the regional needs. This is achieved by conducting workshops, seminars, symposia, training courses and expert consultations. Past efforts of the Programme have focused on building capacity in developing countries. We are continuously searching for effective and innovative ways to fulfil our goals. Our primary interest is in executing practical projects that utilize space technologies to benefit life in developing countries.

Now I will brief you on the activities held in 2005 and planned for 2006.

The status of the activities carried out under the Programme on Space Applications in 2004 and planned for 2005 can be found in my report to the forty-second session of the Scientific and Technical Subcommittee, A/AC.105/840. That report was supplemented by the proposals contained in my statement to the Subcommittee, which are reflected in its report, A/AC.105/848. My statement today deals with the more recent work carried out under the Programme on Space Applications and makes proposals for activities to be carried out in 2006.

So far in 2005, the Programme has conducted three major activities.

One, the United Nations/Australia Training Course on Satellite-Aided Search and Rescue was held in March 2005 in Canberra, hosted by the Australian Maritime Safety Authority. The primary objectives of the Workshop were to provide training on the COSPAS-SARSAT system for countries that are either directly under Australian Search and Rescue areas of responsibility or that are in the Asia-Pacific region sharing common search and rescue boundaries with Australia. In response to the request of Malaysia, the Office provided assistance to Malaysia to initiate process of joining the COSPAS-SARSAT system.

Second, the Second Regional Workshop on evaluating the Impact of 1990-2004 Series of the United Nations/Sweden International Training Course on Remote Sensing Education for Educators, took place in February 2005 in Brazil. The results of the evaluation have been submitted, through SIDA, to the Government of Sweden for consideration and determination of the future of the Course. We hope that the Government of Sweden, as a major sponsor of this series, will continue its generous support of the Training Course.

Three, the United Nations/Algeria/ESA International Seminar on the Use of Space Technology for Disaster Management: Prevention and Management of Natural Disasters was held in Algiers from 22-26 May. This Seminar contributed to increasing the awareness of using space technologies in the prevention and the management of natural disasters such as forest and grassland fires, geo-hazards, floods, locust plague and desertification. The availability of the International Charter Space and Major Disasters and the Disaster Management Monitoring Constellation was also discussed. The major outcomes of the Seminar are the recommendations for regional activities of how space technology institutions and civil protection agencies can work together to better manage and prevent disasters.

The activities to be held during the rest of 2005. There are eight other workshops, symposia and expert meetings to be held during the remainder of 2005.

The third in a series of three symposiums co-organized by the United Nations/Austria/ESA on the Space Solution for Water Management will be held from 13-16 September 2005 in Graz, Austria. In 2004, participants defined the parameters of pilot projects within the theme “Space Technology in Support of Water Resource Management for Poverty Alleviation”. Co-organizers agreed to coordinate efforts to address the challenges of applying space technologies for the protection and restoration of water resources in Africa. Lake Chad Basin was chosen for pilot project as its volume and surface area have declined rapidly in the past decades. Lake Chad Basin covers six nations, providing opportunities for transboundary cooperation and coordination. A planning meeting involving all stakeholders will be held on 11 June to discuss this pilot project, that is tomorrow.

The United Nations/ESA/Argentina Workshop on the Use of Space Technology for Human Health will be held from 19-23 September in Cordoba, Argentina, benefiting countries in Latin America. The primary objective of the Workshop is to promote an awareness of the use of space technology applied to health care and to review benefits of its application.

The United Nations/IAF Workshop on Space Education for Sustainable Development will be held in Kitakyushu, Japan, from 14-15 October 2005, in conjunction with the International Astronautical Congress. The objectives of the Workshop are to review several international education and capacity-building initiatives and to build synergies among the participating Member States.

The United Nations Workshop on Space Law will be held from 14-17 November 2005 in Abuja, Nigeria. The main objective of this Workshop is to build capacity in space law in Africa. The Workshop will focus on the development of national space legislation and policy, the promotion of space law education in national institutions and other issues of specific interest to the region.

The United Nations Workshop on Basic Space Science will be held from 20-23 November in the United Arab Emirates, with the objective of exploring how preparations for the International Heliophysical Year are contributing to sustainable development and capacity-building, particularly in developing countries, drawing on short-term and long-term experience and results of international space-related years, organized since 1957 under the umbrella of the United Nations.

The United Nations/ESCAP/China Workshop on Tele-Health Development in Asia and the Pacific Region, will be held in Guangzhou, China, 5-9 December 2005. The objectives of the Workshop are to exchange experience on the current status of tele-health practices in the region and discuss issues, concerns and approaches in further developing tele-health in the region. This activity aims at establishing a network of experts in the region and stimulating the development of a plan for implementation of follow-up activities.

A Workshop on GNSS will be hosted by the Government of Colombia in September. A United Nations/United States of America Expert Meeting on GNSS will be held in Vienna in December 2005. Future activities will focus on the implementation of regional follow-up projects and the establishment of the International Committee on GNSS, ICG, as outlined in United Nations document A/AC.105/846. Further steps will be taken in the preparation of terms of reference for the establishment of the ICG for the purpose of promoting and coordinating the use and applications of GNSS, particularly in developing nations.

Activities are planned for the follow-up to the United Nations/ESA/Austria/Switzerland Workshop held last year on Remote Sensing in the Service of Sustainable Development in Mountain Areas. The co-organizers agreed to create a web portal on space applications for mountain development. It will serve as a platform for sharing and exchanging information resources on space technology and for establishing a network base in the Hindu-Kush Himalaya region. Eight pilot project concepts were formulated as a result of the Workshop.

For more details on the aforementioned activities, I would refer the distinguished representatives to paragraph 42 of the report of the forty-second session of the Scientific and Technical Subcommittee, A/AC.105/848.

Within our Fellowship Programme, the Programme on Space Applications continues its cooperation with Italy, providing scientists and specialists from developing countries with long-term fellowship opportunities in GNSS and the related applications. Four participants joined this Programme in January 2005 and five participants will be selected to join the second Programme that will commence in October 2005.

Paragraphs 45-49 of the same report and Annex III of the Expert Report, A/AC.105/840, reflect the activities of the Regional Centres for Space Science and Technology Education, affiliated to the United Nations and supported by our Programme in 2005 and 2006. All Regional Centres continue to offer postgraduate-level courses in space science and technology.

I have the pleasure to report to the Committee that the Centre for Space Science and Technology Education in Asia and the Pacific, acronym CSSTEAP, hosted by India, is celebrating its tenth anniversary this year. The Centre was established in India in 1995 and pioneered the United Nations initiative in creating educational centres for space science and technology in developing countries. The Government of India has continuously provided strong support to the Centre throughout the last decade. India has made the appropriate facilities and expertise available to the Centre through the Indian Space Research Organization, ISRO, and its institutions, namely the Indian Institute of Remote Sensing in Dehradun, Space Applications Centre and the Physical Research Laboratory in Ahmedabad.

Its Governing Board comprises 14 members representing 14 countries in the Asia and Pacific region and two observers. To date, CSSTEAP has conducted 21 long-term postgraduate courses and 16 short-term programmes in the field of Remote Sensing and Geographic Information System, Satellite Communications, Satellite Meteorology and Global Climate, and Space and Atmospheric Sciences. The courses have benefited 46 countries and more than 600 scholars in the Asia-Pacific region and beyond. Three hundred and thirty projects have been completed as part of the teaching process. Since 1999, CSSTEAP has achieved the status of an institution of excellence. This could only been achieved with the strong visionary planning, outstanding technical resources and the continuous financial support that have been mainly provided by the Indian Space Research Organization, ISRO, and the Indian Department of Space.

Mr. Chairman and distinguished delegates, in 2006, the Office plans to conduct the following activities:

Two workshops on the use of space technology for disaster management;

Two workshops on the application of space technology to environmental monitoring and natural resources management;

One training course on satellite-aided search and rescue;

One workshop on integrated space technology applications, with tele-health and landscape epidemiology using GNSS technologies;

One workshop on basic space science to be held in Russia focusing on the preparations for the International Heliophysical Year 2007;

The United Nations/IAF Workshop will be held in Valencia, Spain, on the topics of space education and tele-health; and

One workshop on space law.

As to the accomplishments of the Programme on support the United Nations-affiliated Regional Centres for Space Science and Technology Education, the Programme initiated an eight-point interactive coordination system with the Regional Centres. It aims at enhancing the communications among the Centres and the users, disseminating information on educational activities and promoting visibility of the Centres, establishing a common accounting mechanism for financial resources provided by the Office for Outer Space Affairs to the Regional Centres and supporting the development of education curricula.

Since the session of COPUOS last year, the Programme has supported the following activities that lead to the definition of projects.

On data sharing, in order to make the global LANDSAT data sets widely available to African institutions, we continue to support the distribution of LANDSAT imagery to African institutions building upon the work being carried out by UNEP. With the generous sponsorship of the United States of America, the Workshop "LANDSAT Data Sets for Supporting Sustainable Development in Africa" will be held in Morocco in July 2005. In addition, a special session will be held at the AfricaGIS 05 Conference in South Africa in October, focusing on the effective distribution and utilization of the imagery.

On the International Charter Space and Major Disasters, we continue building upon the potential of the International Charter Space and Major Disasters. Statistics show that, since the United Nations joined the Charter in 2003, 80 per cent of the activations are in response to disasters in developing countries and more than 60 per cent of the activations are initiated by the United Nations. The third United Nations-wide meeting to discuss the status of the work carried out by the United Nations together with the Charter will be held in October in conjunction with the next United Nations Geographic Information Workshop Meeting.

In the area of tele-health and tele-medicine, the Programme joined the International Society for Tele-Medicine and e-Health as a partner and co-hosted, with the Medical Informatics and Technology Applications Consortium of the United States of America, a plenary session at the Med-e-Tel Conference in April 2005. The theme of the plenary session was "Space-Based Technology Applications to e-Health". It introduced objectives of the United Nations Space Applications Programme in utilizing space-based technologies to advance health services in developing countries.

The United Nations Office for Outer Space Affairs, India and the United States of America co-sponsored project on tele-medicine applications in Afghanistan is undergoing. Three Afghan specialists will receive training on tele-medicine principles and practices in August 2005 in hospitals in Bangalore, Chennai and Delhi, of India. Later, the VSAT stations and compatible medical equipment will be shipped from India and installed at the Indira Ghandi Hospital. The Afghan medical specialists will then be able to operate the medical equipment and satellite channel via VSAT and the transponder on the Indian satellite to begin medical tele-consultations with their colleagues located in the Indian Medical Centre of Excellence.

The Programme continues to provide technical advice to the Asia-Pacific Satellite Communications Council on the Programme for its annual conference devoted to the space industry in Asia and the Pacific. In the past, only satellite communications issues were address, the Programme will now be addressing all issues of space technology and applications.

The Programme in participating in an ongoing survey of Satellite Broadband Resources in the Asia-Pacific region. The survey is conducted jointly with the United Nations Economic and Social Commission for Asia and the Pacific, the International Telecommunications Union and the Asia-Pacific Satellite Communications Council. This effort aims to discover the underlying reasons for the current lack of satellite broadband Internet services in the Asia-Pacific region and to suggest the means by which such service could begin to penetrate both the commercial markets and the less profitable, but socially important, disadvantaged regions. The survey is planned to be finalized in early 2006.

Give the importance of the geostationary orbit, a project for in-depth analysis of the GEO occupancy will be jointly conducted with Colombia, supported by the Office for Outer Space Affairs and the International Telecommunications Union, with the aim of providing historic measures of GEO occupancy. The GEO Occupancy Analyzer Tool is now being developed as a first phase of this project. The Tool can display the active satellites in geostationary orbit at any given year, both full operating and inclined.

The Office, jointly with SIDA and Stockholm University, recently compiled a book that contains papers describing the successful applications of remote

sensing and GPS/GIS technologies resulting from the United Nations/SIDA training courses during the period 1991 to 2004. This was recommended at the United Nations/SUPARCO Workshop held in August 2004 in Pakistan. We are grateful for the voluntary assistance of the Chief Editor of the book, Dr. Ranjith Premalal De Silva of the University of Peradeniya, Sri Lanka, and the Chief Reviewer, Dr. Juerg Lichtenegger, aided by United Nations and Stockholm University experts. This book covers the successful applications of the technology to Nepal, Sri Lanka, Thailand and Viet Nam.

On educational outreach to youth, in May, an Office for Outer Space Affairs representative, actually that is me, joined a UNESCO's space education team for a series of "Space Education Workshops in Nigeria". The series of education outreach activities for teachers and students in three cities was organized with the Nigeria National Space Research and Development Agency. The Office for Outer Space Affairs distributed educational materials donated by NASA's Aerospace Education Program. These materials are useful for both science teachers and students of all school age groups in gaining knowledge, skills, perspectives and values related to space applications. Information related to the World Space Week was also presented.

For the future development of the Programme, we expect that, starting in 2006, the Programme will provide greater support for pilot projects of national or regional significance in developing countries. The Programme will seek pilot projects to be implemented by countries based on the selected recommendations of previous activities. We plan to spend 20 per cent of our efforts on pilot projects and 80 per cent on activities such as workshops and training.

Initially, building upon the work carried out in the area of space technology and disaster management, the Office will be sending out a Call for Proposals for projects in South-West (South-East – *see statement*) Asia that would use space technology solutions to carry out activities in one or more of the following areas: community-based risk mapping and vulnerability analysis, with a watershed as a study area); impact analysis of the areas affected by the recent Indian Ocean tsunami; rehabilitation of areas impacted by the Indian Ocean tsunami; and flood monitoring. We are grateful for the financial support of the Korea Aerospace Research Institute that makes this initiative possible.

Mr. Chairman and distinguished delegates, I have presented to you a brief review of some of the activities carried out under the Programme on Space Applications. We have achieved significant successes but many challenges remain. I ask you to consider how we can move forward together to ensure that all humankind can reap the benefits of space technology. International cooperation in mustering the manpower, technical capabilities and financial resources is essential. I thank the Member States for their contributions of human, financial and technological resources, and appeal once again to Member States and relevant organizations to contribute generously to the voluntary Trust Fund of the Programme on Space Applications.

In conclusion, the Programme on Space Applications seeks to continue to identify ways to use space science and technology to build capacity in developing countries for promoting their sustainable development. We will continue to focus on activities that prevent or reduce the loss of human life and property and on activities that improve economic and social conditions. Within the constraints of the limited financial and human resources available, the Programme seeks to establish near- and intermediate-term activities and projects that yield tangible results and that will help to propagate sustainable economic and cultural development. In this endeavour, we look forward to fruitful cooperation with all Member States and their institutions.

Thank you very much for your attention.

The CHAIRMAN: Ms. Lee, thank you very much for your contribution and comprehensive presentation of the work of the Office on the United Nations Space Applications Programme. I am sure Member States heard you very clearly and I will expect that in their respective contributions, they will address the concerns you have expressed. Thank you very much.

Before we continue, I give the floor to the distinguished Ambassador of Chile, Ambassador Gonzalez.

Mr. R. GONZALEZ ANINAT (Chile) *(interpretation from Spanish)*: Thank you very much Mr. Chairman. My delegation has closely followed the presentation made by the representative of the Office for Outer Space Affairs on Space Applications and, once again, we have been able to note the excellent work done in the Office and we would also like to comment on the achievements of the Office and the prognosis for the future.

Having said that, apparently, I must have been distracted or something, I did not retain it, but I think that it should stated for the record that there is an issue, which is not a minor issue, and that is the Government of Chile's organization of a meeting with regard to an important issue in the context of FIDAE and it is an issue important to the Office for Outer Space Affairs, and that is distance learning using satellites and this also enjoys UNESCO's support. At that time, there will be a preparatory meeting for the Fifth Conference of the Americas. This was highlighted yesterday as one of the relevant matters in this area. And with regard to cooperation, and I know that we are not going to be discussing that now, but there is some scepticism with regard to cooperation and it is an issue we should address. So this is not a minor issue, it should be salvaged and I would like to see it included in the respective documents.

And, once again, I would like to congratulate Dr. Alice Lee for her very complete and comprehensive presentation. I further would like to congratulate her on very important work that is under way at this time. She has been a very important person in working with developing nations and I hope that she will take this statement as positively as possible and in no way see it as anything negative what I have said. She has a whole list of activities for which she is responsible and this is just one more thing for her to consider.

Thank you.

The CHAIRMAN: I thank the distinguished Ambassador of Chile for his statement and in particular for the consideration of the points he has raised and I am sure that this will be taken care of.

Now, distinguished delegates, we shall now continue our consideration of agenda item 7, Report of the Scientific and Technical Subcommittee on its Forty-First Session.

The first speaker on my list is the distinguished representative of the United States of America, Mr. Higgins. Mr. Higgins, you have the floor.

Mr. J. HIGGINS (United States of America): Thank you Mr. Chairman. First of all, on behalf of my delegation, I would like to express our deep appreciation for the dedicated work of Mr. Dumitru Dorin Prunariu of Romania as the Chairman of the Scientific and Technical Subcommittee for the last two years. During his tenure, the Subcommittee made significant progress and has addressed a wide variety of topics. In addition, my delegation once again commends the extensive work of the Office for Outer Space Affairs in supporting not only the Subcommittee meetings, but also the intersessional work of its working groups.

Mr. Chairman, my delegation has noted the positive developments in the Scientific and Technical Subcommittee in addressing how it will proceed with respect to the UNISPACE III recommendations. We believe the flexible approach that uses multi-year work plans, actions teams where appropriate, and reports by other groups on their activities, is proving to be an effective means of implementing UNISPACE III recommendations and permitting us to address a wide range of relevant issues.

We fully endorse the report of the 2005 Scientific and Technical Subcommittee. We would particularly like to note the successful work in February by the Working Group on Nuclear Power Sources in Space under the direction of its temporary Chairperson, Ms. Alice Caponiti of the United States Department of Energy. The Working Group, following the multi-year Work Plan approved by this Committee in 2003, made significant progress in identifying potential implementation options for establishing an international technically-based framework of goals and recommendations for the safety of planned and currently foreseeable space nuclear power source applications. We were pleased that the Working Group, and the Subcommittee, agreed to hold a joint Scientific and Technical Subcommittee/IAEA Workshop concurrently with the 2006 Scientific and Technical Subcommittee meeting here in Vienna. We are optimistic that such a Workshop will help us to determine how to proceed in our efforts to develop an international framework for the safe use of nuclear power sources in outer space. We fully expect that the Working Group, during formal consultations to be held concurrently with our session next week, will lay the essential groundwork for the Workshop. With respect to these consultations, we would like to welcome Mr. Sam Harbison of the United Kingdom, back to Vienna. We are most pleased to see him resume the Chair of the Working Group on Nuclear Power Sources in Space.

In the area of space debris mitigation, the Subcommittee this year made some very significant progress. As noted in its report, consensus was reached on a new two-year Work Plan to develop a space debris mitigation document based on the Inter-Agency Space Debris Coordination Committee, or IADC, Space Debris Mitigation Guidelines. The Subcommittee's Space Debris Working Group has

been authorized to work intersessionally to fulfill its Work Plan and we are pleased to note that the Working Group is meeting here in Vienna next week. The United States views the IADC guidelines as solid, technically-based measures for any national to adopt and implement in its national space activities. The United States Government endorses the IADC Orbital Debris Mitigation Guidelines and our domestic agencies are well along in implementing debris mitigation practices that are consistent with the IADC Guidelines. However, we recognize the desire of other COPUOS member nations to have voluntary guidelines that are developed within the Scientific and Technical Subcommittee, and thus we will work constructively within the Space Debris Working Group and the Subcommittee to achieve that goal.

We are also pleased to note the progress made by the Scientific and Technical Subcommittee in addressing the multi-year Work Plan on space-system-based tele-medicine. The United States and a number of other delegations provided timely presentations on the status of tele-medicine applications in their countries. We look forward to continuing our work on tele-medicine, and in particular its applications in developing nations, at the 2006 session of the Scientific and Technical Subcommittee.

Mr. Chairman, I would like to compliment the Scientific and Technical Subcommittee on its decision to establish a work plan to follow the preparations of the International Heliophysical Year, IHY, 2007 Programmes. The IHY will be a truly international endeavour, with countries from every region of the world planning to host instrument arrays, provide scientific investigators, or offer supporting space missions. The IHY will serve to focus worldwide attention on the importance of international cooperation in research activities in the field of solar-terrestrial physics. The effects of solar activities and space weather phenomena on our daily lives, on our environment and on our space systems are becoming more apparent, and we need to collaborate to reach a greater understanding of these consequences.

As General Assembly resolution 58/89 has provided, reports on activities of the International Satellite System for Search and Rescue are to be considered under agenda item number 7. Accordingly, I would like to briefly address United States participation in the international COSPAS-SARSAT satellite search and rescue programme. The total number of member nations to COSPAS-SARSAT has now risen to 37. The United States continues to provide instruments in both its geostationary and polar-orbiting operational environmental satellite programmes and, together with our international partners, the COSPAS-SARSAT programme has six polar-orbiting and five geostationary satellites that provide worldwide coverage for the search and rescue beacons. In 2004, COSPAS-SARSAT helped save 1,465 lives in 441 different events. Since COSPAS-SARSAT went operational in 1982, the system has helped save more than 18,000 lives.

We would like to note once again that the two main types of beacons in COSPAS-SARSAT, 406 Mhz and 121.5 MHz, of those beacons, the 121.5 MHz beacon is being phased out and will not be usable as of 1 February 2009. Given the large number of these beacons currently in service, outreach efforts are currently under way to provide information on this programme change. The United States is also assisting in an effort to build an International Beacon Registration Database, or IBRD, for COSPAS-SARSAT. This capability will enable beacon owners who live in countries that do not register beacons to have a place to do so. It will also enable nations who maintain a beacon registration service, but do not have it available online, to record their beacons within the Database. This database is expected to be operational in the fall of this year. Accurate and timely beacon registration is vital to the success of a SAR response to beacon activation, as it gives SAR forces appropriate information about the beacon owner. Additionally, we would like to note that this fall the Secretariat of COSPAS-SARSAT will be completing a move to its new headquarters in Montreal, Canada. For additional information about COSPAS-SARSAT, please refer to the website www.cospas-sarsat.org or www.sarsat.noaa.gov.

Finally, Mr. Chairman, I would like to reiterate that my delegation welcomes the special presentations made before the Subcommittee on a wide variety of topics. We continue to believe that they serve to provide complementary technical content for our deliberations and provide timely information that is useful in keeping delegations informed about new programmes and developments in the space community, as well as illustrative examples of the application of space technology.

Thank you Mr. Chairman.

The CHAIRMAN: I thank the distinguished representative of the United States of America for his statement on agenda item number 7.

Distinguished delegates and representatives, before I call the next speaker, I would like to make a simple announcement and that is, as you recollect

yesterday, we were highly educated and put on a very high platform by Dr. Karl Doetsch, our former Chairman of the Scientific and Technical Subcommittee. Time permitting, this morning, I would like to us, as really because yesterday we had to stop because we had to get out for the Indian affair, the Indian exhibition yesterday and, therefore, I said I felt there were a number of delegations who wanted to make further comments and did not have the chance to do so. So this morning, if we have time, I will open the floor for further comments on the presentation made by Dr. Karl Doetsch yesterday.

With that understanding, I would now like to call on Dr. Petr Lála, the distinguished representative of the Czech Republic to address us on agenda item number 7.

Mr. P. LÁLA (Czech Republic): Thank you Mr. Chairman. Mr. Chairman, since this is the first time our delegation is taking the floor at this session, we would like to express how happy we are to see you again in the Chairman's chair. We are fully confident that under your able leadership and with the Secretariat's help, the Committee will make further progress in most items of its agenda. Our words of appreciation also go to your Vice-Chairmen, Ambassador Ciro Arévalo for Colombia and Mr. Parviz Tarikhi of the Islamic Republic of Iran.

Mr. Chairman, our delegation have had the pleasure to listen to the special presentation of the former Chairman of the Scientific and Technical Subcommittee, Professor Karl Doetsch of Canada, who shared with us his sound experience and thoughts about the way ahead in our deliberations.

And this year we had the rare opportunity to congratulate two new members of the Committee and its Subcommittees, Libya and Thailand. Their views will certainly be valuable in formulating the Committee's position on issues related to the use of space technology for the benefit of developing countries and in other sensitive issues.

Mr. Chairman, our delegation would like to reiterate our deepest sympathy to countries-victims of last December's tsunami disaster and January earthquake. These tragic events have enhanced our conviction about the importance of the use of space technology for disaster prediction, monitoring and mitigation which is one of the items on the Scientific and Technical Subcommittee agenda.

Mr. Chairman, distinguished delegates, the last year was quite significant in the field of space science and technology applications in the Czech Republic. As I already reported during the February Subcommittee meeting, the most important event was the signature of the PECS Charter in Prague on 24 November 2004, by the Czech Minister for Education, Youth and Sport, together with the Director of the ESA Office for International Relations. That has happened just one year after both parties signed the Agreement on ESA's European Cooperating State and shortly after Hungary has concluded similar ratification process.

The Plan of Space Collaboration Activities for European Cooperating States, the so-called PECS Charters, specifies activities through which the Czech Republic will participate in ESA programmes during the starting period of the Agreement. Projects are funded from the Czech Republic's contributions to the PECS programme, at least one million Euros per year. To start the programme, 11 proposals have been selected by related ESA programme boards and by the Czech side. Their overall budget is 2.8 million Euros, half of which will be spent in the field of space science, above 20 per cent go for ground segment, almost 15 per cent belong to Earth observation projects and three per cent to satellite navigation. Other projects will be added in next year's following evaluation of project proposals submitted to the Czech Space Office. The PECS Agreement lasts for five years and can be prolonged.

Mr. Chairman, our delegation is glad to congratulate ESA and NASA to the spectacular success of the Cassini/Huygens mission. We are proud that Czech scientists have been able to participate, in a small way, at this unique project. The Cosmic Dust Analyzer, developed in cooperation of several institutions, including the Observatory and Planetarium in Prague, is continuing its monitoring of the concentration of ice and dust grains in the Saturnian system from the Cassini orbiter.

Mr. Chairman, coming back to the results of this year's session of the Scientific and Technical Subcommittee, our delegation would particularly like to appreciate the finalization of the review of the recommendations of the Third United Nations Conference on the Exploration and Peaceful Uses of Outer Space, in document A/59/174. In this connection, the Czech Republic is ready to significantly contribute to carrying out the Plan of Action prepared by our Committee and endorsed in the General Assembly resolution 59/2.

Regarding the issue of space debris, our delegation will continue to actively participate in the work of the Working Group on the preparation of the

United Nations document on space debris mitigation during its meeting next week. At previous Subcommittee sessions, our delegation presented some comments to mitigation guidelines submitted by IADC and is now satisfied with clarifications which were provided by the IADC experts. We hope that the guidelines will be endorsed by the Subcommittee as a technical background of the United Nations document in the foreseeable future. You may recall that the space debris issue is officially at our agenda since 1994 and the comprehensive Technical Report on Space Debris, the so-called Rex Report, was adopted by the Scientific and Technical Subcommittee in 1999. Do we really need so much additional time to agree on internationally-acceptable mitigation guidelines?

Mr. Chairman, in conclusion, our delegation would like to express its satisfaction with the whole structure of the agenda for the next session of the Scientific and Technical Subcommittee. In particular, we appreciate that most of the items should be now considered under specific work plans. This should make the work of the Subcommittee more systematic and focused so that it can provide valuable expertise for the main Committee.

Also, the theme "Synthetic Aperture Radar Missions and their Applications", selected for the next Symposium to strengthen the partnership with industry, should enable delegates, together with other expected presentations, to get the first-hand information on this important field of applications of space technology in national economy.

Mr. Chairman, distinguished delegates and representatives, thank you for your attention.

The CHAIRMAN: Dr. Lála, thank you very much for your contribution on behalf of the Czech Republic on agenda item number 7.

Distinguished delegates, the next speaker on my list is Professor Mazlan Othman, the Director-General of the Malaysian Space Agency. Professor Othman, you have the floor please.

Ms. M. OTHMAN (Malaysia): Thank you Mr. Chairman. Mr. Chairman, distinguished delegates, my delegation would like to congratulate Dumitru Dorin Prunariu, Chairman of the Scientific and Technical Subcommittee, on his success in harnessing the expertise of the Subcommittee to produce the report. Under his leadership, the Scientific and Technical Subcommittee has once again proven its ability to achieve meaningful results.

Mr. Chairman, allow me address specific issues in the report of the Scientific and Technical Subcommittee. My delegation would like to reiterate our view that in considering the creation of an international entity to coordinate space-based services for use in disaster management, the Subcommittee could consider extending the scope of responsibility of the Office for Outer Space Affairs to include such a coordinating function. It is also our view that as a United Nations entity, the Office has the qualifications to undertake such a function and that this approach, with a small increase in resources, would be more cost-effective than setting up a new entity.

With regard to matters relating to remote sensing, Malaysia is now a member of the Group on Earth Observation that endorsed a 10-year implementation plan for a global Earth observation system of systems in Brussels in February 2005. We are committed to continue to invest in future Earth Observation Systems. For this reason, we are setting up our own implementation strategy and timelines to achieve GEO's goals, while at the same time, being mindful of the opportunity to consolidate them with the implementation of the recommendations of UNISPACE III.

With respect to orbital debris, we are following with great interest the IADC Guidelines. As we are in the process of formulating our Outer Space Act, we would like to use that opportunity to include space debris mitigation standards into our regulatory and licensing framework.

As in the past, we have been in the path of the re-entry of a major satellite, we welcome the call to set up a network of specialized focal points in countries that might be concerned by re-entry risks. Synergies that can be accrued from such a network would be very useful in ensuring we receive timely information.

Lastly, Mr. Chairman, we would like to express our interest in playing a role in promoting the International Heliophysical Year. Our scientists are currently studying the Sun using radio antenna, GPS receivers and all-sky cameras. These instruments have been placed, not only in our country which is close to the equator, but also near the South Pole in Antarctica.

A solar telescope and spectroradiometer will be installed at our robotic observatory located on Langkawi Island by the end of 2005.

We believe that, through becoming a part of an international network, our resources will benefit a much larger group.

Thank you.

The CHAIRMAN: Thank you Professor Othman for your contribution to this debate on behalf of Malaysia.

And the next speaker on my list is the distinguished representative of Canada, Mr. Aldworth.

Mr. D. ALDWORTH (Canada): Thank you Mr. Chairman. In March, the Scientific and Technical Subcommittee's Working Group on Space Debris proposed a Work Plan which, if approved, should result in the approval of high-level voluntary United Nations Space Debris Mitigation Guidelines by June 2007. The spirit of cooperation and dedication within this Group, which included the Czech Republic, Italy, the United States, China, Russia, France, the United Kingdom, Japan, the European Space Agency, India and Canada, was very high.

The Guidelines, to be based on technical guidelines proposed by the Inter-Agency Debris Coordinating Committee, will require the approval of COPUOS and the United Nations General Assembly. It will be centred on the objective of reducing the annual rate of debris creation by avoiding the creation of debris wherever possible.

Orbital debris in outer space is a prime threat to the unimpeded operation of space assets and, therefore, to the global community's continued access to the benefits of space. The space environment is both fragile and hostile already. If orbital debris is allowed to expand unchecked, and especially if a catastrophic debris-causing event were to take place, the increased amounts of orbital debris would negatively influence our long-term, and some say, permanent access to space.

In any discussion of space debris, it also must be remembered that there is far more debris orbiting the Earth undetected than tracked. The ability to track an object is a function of its size, configuration, orbital parameters and composition. The United States military currently tracks about 13,000 big pieces of debris orbiting the Earth, over 10 centimetres in diameter. NASA believes that collisions between space assets and larger pieces of debris will remain rare only for the next decade.

Small pieces of debris, such as micro-meteorites or paint specks chipped off old rocket segments or satellites, cannot be seen and thus are not tracked. But smaller debris regularly hits space assets. It orbits the Earth at speeds as fast as six miles per second, making collisions with even the tiniest fragments potentially highly destructive. Something half the size of a "big piece" can punch a hole in the hull or the heat shield of a satellite. Pieces far smaller, the size of a small coin, can chip or crack windows or, worse, rip through a spacewalking astronaut's space suit.

As Theresa Hitchens, Vice President of the Washington-based Centre for Defence Information noted in an article published last October, "everyone agrees there is already too much orbital debris, particularly in the most heavily used orbits." According to a 1997 NASA study, at the then current rate of growth, debris generation could easily exceed decay rates and make higher orbits unusable in as few as 20 years. Since then, fortunately, there has been a concerted world effort to mitigate debris creation, with the result that the rate of increase has levelled off since 1998. This shows that awareness can have positive results.

The effects of space debris also vary by location with Low-Earth Orbit satellites particularly at risk. Debris in this orbit travels at 10 kilometres per second, which gives a 10 centimetre piece of debris the force of impact of a 35,000 kilogram truck moving at 190 kilometres per hour on earth, fatal to both humans and satellites. This type of collision would be expected to cause the total break-up of a spacecraft, thus creating even more space debris.

In comparison to objects 10 centimetres in size and larger, which are tracked, medium-sized space debris in the range of 1 to 10 centimetres are not only greater in number, current estimates go from the neighbourhood of 10,000 up to tens of millions, but they can also result in mission failure due to penetration of the structure. It is estimated that trillions of even smaller objects exist and are untraceable by current surveillance networks. And with no advance notice from tracking, they are impossible to evade.

LEO debris located under 600 kilometres from Earth falls back to Earth and is burned upon re-entry, but debris in the crowded 600 to 2,400 kilometre range can remain for months, years and even centuries. GEO is far less congested than LEO and debris at this altitude travels at only 0.5 kilometres per second or about the force of a rifle bullet. While smaller objects are, therefore, less dangerous in GEO, this orbit's distance from Earth means that there is no atmospheric drag and debris at this level is essentially permanent.

The issue of space debris and the negative effects which a collision with debris can inflict on any space asset, have resulted in increased concern in recent years as the number for-profit space actors overtakes national civil and military space assets. Some space experts view orbital debris as the single largest long-term threat to the continued use of space for satellites and especially for manned missions.

This is not just conjecture. Many scientists have concerns about reaching a critical density of space debris where a process called collisional cascading would begin. This would be a chain reaction where collision fragments trigger further collisions. Estimates for LEO suggest that such a critical density will be reached when its debris population has increased a few times beyond present numbers. Mr. Hui Zhang of Harvard University, in his 2004 paper entitled "Chinese Perspectives on the Prevention of Space Weaponization" estimates that the density may already be sufficiently great in the 900 to 1,000 kilometre and 1,500-1,700 altitudes of LEO to sustain a cascade of collisions.

Engineers and scientists have long known that space junk impacting the United States Space Shuttles as they fly through space can do catastrophic damage.

Until now though, few have put space debris on the same level as the dangers related to launches, re-entry or landing. But an internal risk assessment, still under review by NASA's experts, says space debris hitting different parts of the orbiter accounts for 11 of the 20 problems most likely to cause the loss of a Shuttle and crew. Overall, space debris accounts for half of the catastrophic risk on any Shuttle flight. NASA says it is trying to decrease the odds of a space debris disaster from about one in 200 to one in 600.

Because of space debris concerns, most space actors currently attempt to boost end-of-life satellites in GEO to higher orbit to remove what would otherwise become enormous pieces of debris dangerous to other satellites. This step is not mandatory on a global scale, however, and even today many space actors fail to observe this practice in order to save scarce fuel for revenue-generating activities.

Finally, it is worth noting that awareness of the potential of debris to render space unusable has tempered, but not halted, the consideration of space-based weapons.

According to Professor Joel Primack of the University of California, writing in the Journal of Atomic Scientists in September 2002, the "weaponization of space would make the debris problem much worse, and even one war in space could encase the entire planet in a shell of whizzing debris that would thereafter make space near the Earth highly hazardous for peaceful as well as military purposes".

The testing, deployment and use of space weapons would create an environment where weapons would become both threat and target. And once deployed into space, the temptation to use them would become stronger. It would not likely be sufficient to limit space-based weapons to non-kinetic vehicles which do not create space debris when used, because these weapons themselves would become the target of certain nations that perceive themselves to be under attack and attempt to shoot them down in some fashion involving explosives or kinetic energy.

Even more alarming, as noted by Michael Krepon, President Emeritus of the Henry L. Stinson Center in Washington, in his article entitled "Weapons in the Heavens, a Reckless and Dangerous Option", "States possessing nuclear weapons and ballistic missiles could explode a nuclear weapon in space to wreak havoc on satellites."

Space weaponization could, therefore, have a disastrous effect, not only on global security, but also on the global economy, which is increasingly utilizing the unique capabilities of assets in space. To operate a satellite within a cloud of millions of tiny pieces of debris would be impossible. This could mean no more satellites in LEO for space exploration, military or civilian purposes, the International Space Station, Earth observation satellites, photo reconnaissance satellites and some navigational satellites.

The Government of Canada continues to call for the negotiation of a multilateral agreement banning all space-based weapons. We have consistently urged for such a ban since 1982. At last September's opening of the United Nations General Assembly, the Prime Minister of Canada, the Right Honourable Paul Martin, reinforced this stance by stating "What a tragedy it would be if space became one big weapons arsenal and the scene of a new arms race". He went on to say that "In 1967, the United Nations agreed that weapons of mass destruction must not be based in space. The time has come to extend this ban to all weapons".

Our future use of space depends on keeping orbital debris to manageable levels. While the voluntary Debris Guidelines being formulated by the Scientific and Technical Subcommittee Working Group on Space Debris will represent a significant

advance. They will not cover all debris-producing situations and accordingly will need to be kept under consideration.

Thank you Mr. Chairman.

The CHAIRMAN: I thank the distinguished representative of Canada for his contribution to agenda item number 7.

Now, distinguished delegates, before I continue, I want to alert you that, time permitting this morning also, I believe we shall touch upon in an informal manner the issues addressed by the Scientific and Technical Subcommittee, as articulated by the Chairman of their Subcommittee. Equally, we need to take note of some of the points raised by Ms. Lee in her statement to us. Then there is the issue of how we can relate our work with that of the Commission on Sustainable Development. And finally, we need to think of how we are going to address our contribution to the High Level Plenary Session coming up in September.

So, time permitting this morning, let us throw out some ideas on how we proceed because we should not wait until next week when we rush to do everything.

Having said that, Canada, the last speaker, … Yes, Ambassador Gonzalez, you have the floor.

Mr. R. GONZALEZ ANINAT (Chile) *(interpretation from Spanish)*: Thank you Sir. We did not wish to make a statement but having heard the outstanding statement of the representative of Canada regarding this agenda item, which has provided us with vivid examples of the situation, we would like from the outset that we fully associate ourselves with his position and we should like to encourage him to ensure that the statement which he made be used as an example, for very often, while we engage in discussions, we ought always reach for the heart of the problem. This was a concrete presentation and it would be most helpful if, in the future, we could distribute such statements. They could perhaps take the form of informal documents. We, here, find very interesting elements which will help us to better illustrate a debate on this issue and the context of the Scientific and Technical Subcommittee, and, in fact, more broadly, within the context of COPUOS. We often get the feeling that we address issues in a somewhat fragmented way as if these issues just emerge from nowhere. This is not the case. They are the concrete consequences of concrete actions, and the Canadian delegate said all this quite well. Of course, if we only address commerce, yes, but we should address everything, including militarization and other issues.

I seem to recall that this is the first time that we approached this issue in such a comprehensive, global way, if you wish, for the situation is a very serious one and what is required here is vision, vision to address this serious issue, for there are questions which we are looking at, important for the future, but perhaps not that important. However, for developing States, the issue of space debris related, and I stress the word "related", to the militarization of space, is a crucial issue and I think that this should be publicized to the whole of the international community. We cannot relegate this issue to closed discussions and consider this as the simple statement of one delegation, one which will be included in the report of our meeting, but no more. No, this should serve as one of the topics for our general discussions, for I would like to remind you that during the course of deliberation of the Scientific and Technical Subcommittee, there was a very lengthy discussion on concerns voiced a great many States regarding the need to readdress this issue. It has already been addressed in a in-depth way by the Scientific and Technical Subcommittee, but, as I said, it should be re-examined in the various bodies of our Organization. And I think what we need here is legal advice as well, a legal opinion. For, despite the fact that the existence of the Liability Convention and other international instruments, and I include the United Nations Charter here, well, despite this, and I do stress that they do establish the basis, the legal basis which allows us to pass laws in this field. But to enforce this concept of liability, I stress that we cannot continue to make our arguments, if I can express myself although in a somewhat immature way, because this issue is very important, it should not simply be relegated to a scientific and technical context. We cannot continue saying all the time that it is somewhat premature to address it in a legal way.

I feel a certain amount of concern regarding this for it has been a good 20 years now that we have heard such arguments and every time that States try to shirk(?) addressing this issue in an in-depth way, it gets relegated and we simply say that it is premature. For example, nuclear power sources in space. It is not premature to address it. No, this is a timely issue, a very topical issue. However, in the very broad field of the prevention and mitigation of natural disasters, the protection of the environment or given the fact that we currently have legislation in the environment phase(?), for example, the Kyoto Protocol. In my opinion, the issue of space debris is very important in such an international context and I think I can call it mature and it can be considered by the Legal Subcommittee and

convey its recommendations to the General Assembly and I will continue to insist on this issue. There are many States which have associated themselves with this idea and the report, rather, clearly reflects this that States stressed the importance of this issue. Indeed, we should perhaps improve or heighten the political and legal level at which we are addressing this issue.

This remains an outstanding issue. Yes, one which requires additional consideration. One which gives rise to an increasing amount of debate and I would, through you Sir, ask the Canadian delegation to graciously distribute the text of their statement to all the other declarations, a statement which I am sure will be very useful for our coming deliberations.

Thank you Sir.

The CHAIRMAN: I thank the distinguished Ambassador of Chile for his statement. Indeed, and, in fact, the approach we are taking is what I was following when I said, time permitting, this morning, I would like to open the floor for an informal discussion on the issues before us on the Scientific and Technical Subcommittee. You have already started so we will continue, time permitting. Thank you very much.

Syria has the floor please.

Mr. M. RUKIEH (Syrian Arab Republic) *(interpretation from Arabic)*: Thank you Mr. Chairman. We have followed a short while ago with keen interest the excellent statement delivered by the distinguished representative of Canada who has highlighted and given accurate figures about the situation obtaining in space with regard to the debris, either concerning the large pieces of debris or the small pieces. Furthermore, he has explained the possible eventuality when space is used for weaponization and testing weapons or in the case of a space war. From time to time, we hear in the media about what is called the programme of Star Wars. If this programme is indeed implemented in space, we now understand the magnitude of the catastrophe. On Earth we already suffer numerous problems. We witness wars and disasters and misery. Should we transport all these tragedies to space as well? I believe this is a very important issue and, therefore, it is necessary to have an international law which would proscribe weapons, tests in space and any Star Wars programmes should be prohibited, whatever its features and therefore.

We should diminish the use of nuclear power sources in outer space. We should have a convention which would prohibit all these practices. We should focus on the use of space for civil applications which would contribute to human security and prosperity and development, especially in the field of public health and in the protection of the environment and in disaster mitigation on Earth.

Thank you Sir.

The CHAIRMAN: I thank you very much distinguished representative of Syria for your statement.

Distinguished delegates, I said earlier on, time permitting, we will consider the presentation made by Dr. Karl Doetsch yesterday. Canada was the last speaker on agenda item 7 this morning but before I adjourn that particular agenda item to the future, I would like to open the floor for further discussion on Karl Doetsch's presentation of yesterday.

And to begin that presentation, or that discussion, let me remind you again of what he said yesterday. He presented us after his introductory remark on the role of COPUOS and what COPUOS accomplished to date. He relegated(?) all of that to the past 50 years and then he challenged us to look forward. And in looking forward, he placed before us some of the things that we are doing, that are sustainable, and others that are not sustainable. For example, we are practising globally-managed pollution limits and use of energy resources. We are accelerating the application of new technologies. Do we need global cooperation in this area? And, according to him, this may not be sustainable. But what is sustainable, he stated, is globally-managed disasters, the use of _____ *(not clear)* resources and so on and so forth. Then he went ahead and challenged us to develop the framework for establishing the future direction for COPUOS by initiating specific space goals linked to the economic and social goals and schedules established for addressing current world problems and so on and so forth. And he concluded that area by asking us to review the possible roles for COPUOS in implementing some of the suggestions he has made.

Then he challenged us to look at the issue of the _____ *(not clear)* space, it is not only in the aspect of applications. But by going into space, we actually challenge the intellect of the youth which enables them to get encouraged and interested in different aspects of science and technology. And by going into space, we also know about other planets. As you are all aware, we have been looking for other living beings through SETI in the outer space. Then he said we should probably establish a group here. Let them pool some of the ideas he has proposed and that

group can take a look at some of the suggestions he has made.

Without presenting his paper, I just want to bring some of this out. So the floor is open for comments, not on my comments, but comments on the presentation made by our distinguished speaker yesterday, Dr. Karl Doetsch.

Ambassador Gonzalez, you have the floor.

Mr. R. GONZALEZ ANINAT (Chile) *(interpretation from Spanish)*: Thank you Sir. It is clear that yesterday we ran somewhat short of time. For the statement, indeed the presentation of Dr. Doetsch was, how shall I put this, was stimulating but did give rise to a number of concerns and we have discussed these in an informal fashion with a number of representatives of developing States. What are these concerns?

We find ourselves in a situation where we can rightfully ask ourselves whether life on other planets exist or not but I do wonder whether this is really a pertinent topic for our Committee here. I am sceptical. I will not hide it. At a time when on our very small planet, our small Earth, we have not got the necessary resources to implement the recommendations of UNISPACE III and UNISPACE III + 5. Yes, very well, as a theoretical exercise, excellent, let us wonder about the possibility of extraterrestrial life but let us not confuse things here, let us not attempt to create a working group or a reflection group, if you want, on this issue here within COPUOS, if it is to the detriment of other more pressing issues for, without really wanting to do it, without doing it deliberately, we will move away from our principle duties which are the implementation of our mandate granted us by the General Assembly and then the collective memory of our Committee which dates back to 1972 when we created the Space Activities Programme. And if we examine and look at this and review this Programme and you said this with great enthusiasm Sir, if we look at all the recommendations we made and all the results achieved, the conclusions from a quantitative point of view, would be that this was not really so outstanding. What is important here is to re-focus our activities based on the resources we possess and the resources we possess create a context within which we have created the Action Groups of UNISPACE III. There were 13, I believe, 14, 12 Action Groups, if you want. Is there but one which addresses natural disasters, natural disasters which have caused a great deal of damage, as one of the tsunami.

I recently read something very interesting, something by Dr. Conrad Hoppenbach(?), in fact, in a number of foreign policy, and it stated that if we had had the necessary resources, and this is re. satellite resources, we would have been able to reduce the consequences by 25 per cent, or damage by 25 per cent. I do not see how the representatives of Asia, Latin America and Africa can have, as their main concern, the discovery of human life or life, extraterrestrial life. We are not ready to associate ourselves to such an exercise and consideration. No, we are ready to follow the proposal of Canada which is that there is a Group which has been created under a General Assembly resolution, the Group of 15. Let us work with that. The topic of natural disasters is of great concern. The implementation of the recommendations of UNISPACE III is an extremely significant issue. They have not been implemented because we do not have the necessary financial resources so what the Bureaux, or rather what the Office for Outer Space Affairs requires is the resources. The Office for Outer Space Affairs should be provided with a much more powerful, energetic role when it comes to the management of natural disasters and this, of course, will require the requisite human and financial resources. The Office for Outer Space Affairs has carried out outstanding work. Its history clearly shows this. So I do believe that we have to move forward very carefully in targeting the debate of our Committee. Some issues are of greater concern, others of lesser concern. Important here are space applications which have not been implemented due to a lack of resources.

And this runs counter to the mandate granted us by the General Assembly. Industrialized, developed States, at a time when developed States can carry out a whole set of scientific and technical experiments which are of undeniable interest and usefulness. I would suggest that any initiative, any question which we will consider here within the confines of our Committee should be of specific interest, of concrete interest to all our States. Let us not drift away from the main mandate of our Committee.

The CHAIRMAN: I thank the distinguished Ambassador of Chile.

Before I give the floor to the distinguished representative of France, let me state that I have tried my best to read Dr. Karl Doetsch's presentation of yesterday and I want us to debate his presentation not my comments because I think, I have been reading his presentation and I do not see him talk about SETI or looking for other living beings in outer space. Dr. Karl Doetsch brought out the need for us to pay attention to

future generations of human beings, not only because of a desire to explore space but more importantly, because of the significance that extraterrestrial resources will eventually play on our own life here on Earth. So I want us to please take that into consideration.

Having stated that, I give the floor to our distinguished representative from France, the incoming Chairman of COPUOS. Mr. Brachet, you have the floor.

Mr. G. BRACHET (France) *(interpretation from French)*: Thank you Sir. Sir, I have listened with a great deal of interest to both the statements made by Dr. Karl Doetsch, who knows the way we function and the concerns of our Committee so well, as well as the comments which his presentation inspired. I would merely like to contribute to this debate in the following way.

In our view, one should not oppose, within the concept of space activities, activities of the exploration type which are focused on the outside, targeted at our galaxy, our solar system beyond, and activities which are aimed at satisfying and meeting the needs of our societies and the protection of our planet. The first reason is clear and evident, our planet is a member of the solar system and on this planet there are six billion astronauts, in fact, I call them the geonauts. They are the astronauts present living on the spaceship named Earth and, of course, all the progress in research, all the progress in the field of technology which is a result or come as a result of space efforts, Our _____(?) *(not clear)* force applied to the seeking and striving to create better conditions for our planet and its inhabitants. We have a great many examples of this. I believe that space exploration missions are missions which have the merit of pulling technology, of pulling the concept and the setting up of systems over and beyond what we do today and this progress is then directly applied to the navigation, telecommunication and observation systems which we utilize to preserve the future of our planet.

This is the first comment. I do not think we should oppose these two approaches. They complement each other very well.

Secondly, regarding the future role of the Committee. It is absolutely clear that our first priority is the mandate which has been entrusted us and then something which is a little closer to us, the implementation of the recommendations of the UNISPACE III Conference and the Committee has undertaken a great deal of work on this over the course of last year to take stock of the work to be carried out to implement the recommendations of UNISPACE III. And I believe that this will remain the priority of our Committee and the priority of the various working groups which have been established.

Having said this, the Committee should keep in touch with evolutions outside the framework of UNISPACE III, to keep in touch with new developments in the field of space in many countries, and here I am referring particularly to India and China, whose space development is outstanding, it is remarkable, and which shows us, on a daily basis, the extent to which they are able to implement and utilize space technologies to benefit their social and economic development. So I, Sir, would advocate an attitude within our Committee which would be one of remaining focused on our priorities but also an attitude which would be one of openness, vis-à-vis, the various space activities of the Member States, for this would enable the Committee to better function and to discharge its mandate.

Thank you Sir.

The CHAIRMAN: I thank you very much distinguished representative of France for your contribution.

Do I have any further contributions, comments on Dr. Karl Doetsch's presentation of yesterday?

India, you have the floor.

Mr. M.Y.S. PRASAD (India): Thank you Mr. Chairman. First of all, I would like to repeat what the Chairman of ISRO yesterday, the way he complimented the presentation by Dr. Karl Doetsch which was quite enlightening. We had carefully gone through his presentation and also the few comments given by the distinguished delegations of Chile and France today.

We find in Dr. Karl Doetsch's presentation, in the latter part of it, that is the future role and _____ *(not clear)*. The first bullet in his presentation says the COPUOS mandate and goals should enunciate specific space goals linked to the economic and social goals and should establish _____(?) the current world problems, for example, environment, sustainability, digital divide and disaster alleviation. We do not think from the Indian delegation that his presentation had _____ *(not clear)* of not taken recognition of the present

problems which we help to address and which we help to solve.

Remember when he talked about the future as he sees it, I caught from him about the five-year plan and _____ *(not clear)* the five-year plan, note should be taken of its need to be both actionable and market-oriented where the market is considered to represent all of the world's users of space capacity who are not on the supply side. I repeat this, when we consider the market, it is not the world's users of space capacity who are not on the supply side, whether they governmental or non-governmental entities.

This clearly brings out that when he talks about the market, he is not talking about the market as we read in the newspapers in the conventional terms but he is talking about all the whole users as the market for the space field. Of course, we can have different views on his proposal to have a planning committee or thinking committee, there can be various views, but then his presentation, as the Indian delegation sees it, is quite futuristic and we fully agree with the very clear views expressed by both the distinguished delegates of Chile and France. We especially agree with the views of the distinguished delegate of France that the exploration and the innovation are the basis for the future and you cannot have, we would not have regard to the space field today if some people had not deemed, if some people had not worked hard to realize their dreams into reality. As the President of India says always in his interactions with the people, he says "people, you must dream and you must translate your dreams into reality".

In that sense, we would like to pay our high tributes to the quite far-reaching statement given by Dr. Karl Doetsch and the presentation and then we are of the opinion that his presentation has not _____ *(not clear)*, has not ignored the present mandate of the problems which we are to address. Maybe I think he is a bit ahead of his times.

Thank you Mr. Chairman.

The CHAIRMAN: I thank the distinguished representative of India for that statement.

I invite the distinguished lady from Cuba to address the floor.

Ms. L. PALACIOS (Cuba) *(interpretation from Spanish)*: Thank you Mr. Chairman. I am very pleased to have an opportunity to reflect somewhat on the presentation of Dr. Doetsch. Thank you for providing that opportunity. And we would also like to thank Dr. Doetsch as well.

We listened to him very carefully and, indeed, I think that first congratulations are in order. He should be congratulated because he undertook great efforts for a long period of time in the Scientific and Technical Subcommittee. He was always very attentive. He did know how to skilfully guide the meetings. So that is our delegation's view. And in my mind was engraved the table which unfortunately is not here but it was in the presentation, the table which talked about sustainable development first and which aspects were impacted in terms of sustainable development. I think it would be nice to have the presentation in the manner in which he delivered it because that is a priority for us, the main priority on the planet today. How can we achieve sustainable development, taking into account all the very serious problems that afflict us, poverty, natural disasters, militarization? Various delegations have alluded to these various problems that assail us. And so I think we need to focus on the main work of COPUOS. It should be, how can space help with sustainable development of our countries? How can it help us to fight poverty? How can it help us to fight to improve our environment? And these are all issues that he raised in his presentation.

And, of course, there are other issues which are also equally important and those are the future with regard to space research. What is the future of space research? And, of course, they are important. They do not lose any significance, particularly when we think about the results that might then lead to ensuing consequences, positive consequences for the Earth. So all the research we do in space is done so that our planet Earth achieves results, makes headway in the future.

I think that, to some extent, his presentation was rather futuristic and yet I also think that is fairly natural that that would happen, quite logical. And I think that because there is a group of countries, developed nations or countries that might be thinking along those lines. Unfortunately, the developing nations do not have even the possibility of thinking that way. And I think what would be most reasonable, or the most rational approach, would be for us to understand each other and that we help each other. And this is particularly true when we look at UNISPACE III recommendations and these recommendations were taken up by all countries. We have the path of cooperation. It exists but it is at a very low level at this juncture but it is a means to an end. It is a means to working together to achieve the future

that we all wish for our planet. We all wish for a planet with truly sustainable development.

Thank you.

The CHAIRMAN: I thank you very much distinguished lady from Cuba on your contribution on this debate.

Do you have any further comments?

If not, Dr. Karl Doetsch, on behalf of the Committee, I want to thank you very, very much for getting us talking on our future. And when we talk about our future, I want to say the following. We all listened to what the Cuban lady just said and also India, also France, also Chile. The question you must ask yourself is very simple. How come we are in this room today as delegates of our countries, deliberating on issues of outer space, because some people dreamt. Some people dreamt and came to the conclusion of putting that dream into reality. Some people put their lives on the line. Some people died in the process. And they made it possible for us to come here. It was because of that dream which, when everybody woke up on 4 October 1957, hey, the Russians are there, my God! And then everybody started getting scared. Then you had the Ad Hoc Committee. Then you had the full Committee. Because if we, the developing countries, do not do something, these industrialized countries are going to do the same thing they are doing on Earth in space before we know it. Therefore, we have to establish this Committee and this Committee had been established. A lot of rules and regulations under your auspices have been put in place and what Karl Doetsch has done is then to say, hey, wait a minute, because you know you have a Group called the G15 in your Bureaux. The G15 means the five people who served the Bureaux before the current five took over, in addition to the five that are coming in as the current one goes away. So that is called the G15. So we are having a meeting on Tuesday and at that meeting we are debating the Heliophysical celebration and Karl Doetsch said, it is good enough to celebrate your past but the best part of that celebration is also to look at the future. _____ *(not clear)*, he was intimating us with what he had in his paper and we debated that and all of us agreed with him that it is more important not only to dance and clap and say we have achieved this, we have achieved that, but we need to look ahead and he has put a road map before us.

For my benefit and for your benefit, I am not going to summarize anything. I just want to read for your benefit and my benefit, three sentences or four from his statement of yesterday.

One, are we satisfied with our progress to date? And he said so many things after that. Then he said, these questions might be answered by establishing a framework for the future direction of COPUOS through the initiation of specific space goals linked to the economic and social goals and schedules established for addressing current world problems, not even future problems, current world problems. _____ *(not clear)* space goals linked to the anticipated evolution of the world during the next 50 years and a review of the role COPUOS might play in implementing this.

Then his immediate sentence after that says, to do this that we must merit in COPUOS establishing a long-term planning group to consider the mandate and goals for COPUOS during the second 50 years of its existence and to develop a rolling five-year plan to meet them.

Then in his conclusion, he stated as follows: COPUOS would do well to consider undertaking a fundamental review of how it should develop from its present role into a role that can be more proactive and relevant at a time when space activity priorities themselves will be undergoing significant transformation.

I will leave all this for you to digest and consider as we move from today to the next week. It is my hope that we all should re-visit this presentation, not in the form of a debate but in a form of action. What are we going to do?

Thank you very much for your contribution on that issue.

Distinguished delegates, we had opened the floor before for agenda item 7. At the present moment, there are no more speakers on agenda item 7 so we will continue the deliberation on that item in the afternoon. We also opened the floor this morning for deliberation on agenda item 8. We did not? OK, good, thank you. I thought we did. We did not. So we will open agenda item 8 on Monday when our Chairman of the Legal Subcommittee will be with us to introduce the report.

We will convene in the afternoon. By the clock in front of me, it is about three minutes to one so I think the time we had this morning has been well spent and if anything at all, I owe all of you my sincere words of thanks for your patience but more than that, for your intelligent contribution to the debate and the issues before us. So we will meet again in this room today at 3.00 p.m. and at that time, in addition to agenda item 6, I think we have come to there from 5,

right, so agenda items 6 and 7 and the two presentations, one from China and the other one from Japan, this afternoon.

Go and have lunch and please come back at 3.00 p.m.

This meeting is adjourned.

The meeting adjourned at 12.58 p.m.