

**Committee on the Peaceful  
Uses of Outer Space**  
Legal Subcommittee

*Unedited transcript*

787th Meeting  
Wednesday, 25 March 2009, 10 a.m.  
Vienna

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Chairman: *Mr. V. Kopal (Czech Republic)*

*The meeting was called to order at 10.17 a.m.*

**The CHAIRMAN.** Good morning, distinguished delegates, I now declare open the 787th meeting of the Legal Subcommittee of the Committee on the Peaceful Uses of Outer Space.

I would first like to inform you of our programme of work for this morning. We will continue, and hopefully conclude, our consideration of agenda item 3, general exchange of views. I have some speakers for this particular point.

We will also continue our consideration of agenda item 4, status and application of the five United Nations treaties on outer space. Continue with our consideration of agenda item 5, information on the activities of international intergovernmental and non-governmental organizations relating to space law and we will begin our consideration of agenda item 6 (a), the definition and delimitation of outer space and 6 (b), the character and utilization of the geostationary orbit. At the end of the plenary, a presentation will be delivered by the representative of Japan entitled: Findings from Japan's lunar explorer, Kaguya. We will then adjourn the plenary meeting so that the working group on agenda item 4 can hold its second meeting under the chairmanship of Mr. Vassilis Cassapoglou.

Following the end of this morning's meeting, during lunchtime, from 1445 until 1500, there will be a presentation by Japan of a video entitled: Results from Japan's lunar explorer, Kaguya, taking place in this conference room. We will have quite a colourful programme for this morning and also for the end of the lunch break.

Are there any questions or comments in this proposed schedule? I see none.

*It is so accepted.*

Now, let us start on general exchange of views, agenda item 3. We will continue, and hopefully conclude, our consideration of item 3 on our agenda, general exchange of views. The first speaker on my list is the distinguished representative of Bolivia. You have the floor, Sir.

**Mr. H. BAZOBERRY** (Bolivia) (*interpretation from Spanish*). Professor Vladimir Kopal, I would like to express some views and comments on behalf of the Group of Latin American and Caribbean States, GRULAC. I would like to start by congratulating you on your excellent management of this Subcommittee, we are convinced that under your leadership this session will be successful.

Mr. Chairman, GRULAC is interested in strengthening international peace and security and consolidating international cooperation and therefore reiterates its support and respect for the legal principles underlying the exploration and peaceful use of outer space.

We emphasize the following principles. The principle of access to outer space on the basis of equality in favour of all States, without any discrimination, regardless of the level of their scientific, technical and economic development. In this regard, we support regional activities designed to strengthen the universal character of the use and

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exploration of outer space as well as its equitable and rational utilization.

Next, the principle of non-appropriation of outer space, including the Moon and other celestial bodies, which cannot be the object of appropriation on the part of States. Any claims of sovereignty, occupation or appropriation in any other form.

Next, non-militarization of outer space which, as the province of all mankind, should be used exclusively for improving the conditions of life and peace for the nations inhabiting our planet. Regional cooperation as defined by the General Assembly of the United Nations and in bilateral agreements such as, for example, the Punta Arenas Declaration, signed by Argentina and Chile, to set up a regional space agency.

Next, we take this opportunity to emphasize, on behalf of GRULAC, the importance of developing legal issues with regard to outer space activities pursued by the Pro Tempore Secretariat of the 5th Space Conference of the Americas, currently held by Ecuador. In this regard, we welcome the success of the seminar held in Quito, on 26 and 27 August 2008, under the theme: Space law in the face of new challenges. It involved the participation of countries from the region and had the support of the Office for Outer Space Affairs and the international group of experts.

In relation to the work of this Subcommittee, GRULAC welcomes the progress achieved and expresses its desire to continue constructive debate on all items of the agenda. We also ask that other matters be included with a view to deepening our knowledge of outer space and making sure that space technology is used for the benefit of all peoples.

With regard to the use of nuclear power sources in outer space GRULAC, with the greatest respect for the existing international norms, believes that regulatory activity associated with the use of nuclear power sources in outer space is exclusively the duty of States without any relation to their level of social, economic, scientific or technical development. It is the responsibility of the entire humankind.

Once again, we reiterate the international responsibility of governments for all national activities that involve the possible use of nuclear power sources in outer space, be it activities pursued by government bodies or non-governmental entities. We emphasize the importance of making sure that all of these activities be conducted for the benefit of the people and not to damage their life.

Mr. Chairman, in general terms, GRULAC believes it is indispensable that this Subcommittee should step up its interaction with the Scientific and Technical Subcommittee of COPUOS with a view to promoting the development of binding international norms that would apply to such issues as the use of nuclear power sources in space, space debris and others because of the great impact that these types of activities have on life on this planet. One of the principal responsibilities of the United States and the legal sphere is to promote progressive development of international law and its regulation, in this case with regard to the environment and outer space.

On the other hand, with regard to the nature and use of the geostationary orbit, Mr. Chairman, GRULAC would like to reiterate its position that the geostationary orbit is a natural resource, a limited resource, which is in danger of saturation. Therefore, we believe that its utilization should be rational and be available to all States giving them access to the geostationary orbit on an equitable basis, in particular taking into account the needs and interests of developing countries and the geographic position of specific States in compliance with the principles established in the norm setting area by ITU in addition to other norms and decisions of the United Nations. Therefore, Mr. Chairman and, to ensure the sustainability of this resource, GRULAC believes it is necessary that the consideration of this item be kept on the agenda of the Legal Subcommittee on an intergovernmental level through the setting up of action teams, working groups or intergovernmental panels as necessary.

Mr. Chairman, finally on behalf of the Group of Latin American and Caribbean States, let me reiterate our willingness to cooperate and contribute to a productive and successful debate so that this session becomes a resounding success. Thank you very much.

**The CHAIRMAN.** Thank you very much Excellency, Ambassador of Bolivia, for your statement that you presented on behalf of the GRULAC group. I believe this was an important statement because it was also made on behalf of a whole group of States, members of this Subcommittee.

In the first part of your statement, you emphasized the fundamental principles that should be \_\_\_\_ (?) all our activities in outer space. You then mentioned the seminar that was held in Quito, last year, on space law in the face of new \_\_\_\_ (?). Then you also kindly requested to make the progress on all items of our agenda. You emphasized that space technology should be used for the benefit of all peoples

and you also were speaking on some particular points of our agenda, such as nuclear power sources. You underlined the responsibility of all governments for all activities in this particular area. You also recommended to step up interaction with the Scientific and Technical Subcommittee and were advocating further progress in the development of international law. You also touched on the point of the geostationary orbit and reiterated the position of GRULAC in this particular respect and recommended to keep this item on the agenda of the Legal Subcommittee. Finally, I would welcome the willingness of your delegation, and all member delegations of GRULAC, to continue in the cooperation in our interest in the peaceful uses of outer space.

Thank you very much and I now give the floor to the distinguished representative of Ecuador, Ambassador Diego Stacey Moreno.

**Mr. D. STACEY MORENO** (Ecuador) (*interpretation from Spanish*). Thank you very much Mr. Chairman. My delegation is pleased to see you on the occasion of your election to the forty-eighth Legal Subcommittee of COPUOS. We are sure that this current session of the Subcommittee will give us substantial and concrete results so that the international community and, in particular, developing countries will be able to reach their aspirations of benefiting more and more from the peaceful and equitable use of outer space.

Under a legal framework which takes into account the existing asymmetric nature of things, at the same time we would express our gratitude to members of the Bureau, and in particular to the Director of OOSA, Madam Mazlan Othman, for the commitment they showed to the principles and objectives of the Organization. We would also like to thank the Secretariat for the very efficient way that they have carried out preparations for this meeting.

We fully adhere to the statement presented by the Ambassador of Bolivia on behalf of GRULAC. Mr. Chairman, this is the proper forum for us to carry out some evaluation and thinking about what has been achieved by the Subcommittee under the conceptual framework of space law as well as the universalization of conventions and agreements.

We also have to take a look at the new realities of the situation and their repercussion on international cooperation, which is more and more urgent in nature, with a view to the full benefit of the advantages that access to outer space has for human development, environmental protection and poverty reduction.

Space law, for my country, is fundamental in strengthening international law. We believe that an adequate legal order, and a stable one, guarantees the rights and guarantees of all States in this regard in utilizing outer space. In this regard, my country believes that the special legal regime for space activities must provide benefits of research and activities for the quality of life of all of the human beings on the planet, especially those in developing countries, guaranteeing their access through cooperation technological support from countries that can already avail themselves of this very valuable resource. \_\_\_\_ (?) great interest in participating in space activities and in the utilization of technologies applied to scientific and social development nationally and regionally. This is why we have given great impulse to the setting up of an Ecuadorian Commission for Space Development and, since July 2006, have assumed the role of the Pro Tempore Secretariat of the Space Conference of the Americas.

This technical, scientific and legal mechanism aims at providing better knowledge, develop an application of space science and technology in the countries of the American continent. During our mandate, we have redoubled our efforts, both human and financial, in order to ensure the greatest benefits on behalf of Ecuador and the region as a whole.

In this context, I should point out that the Pro Tempore Secretariat of the 5th Space Conference of the Americas has made great efforts in strengthening regional and interregional cooperation as you can see in the resolution coming from the 4th General Assembly Commission, unilateral cooperation for the utilization of space to specific ends. As part of the measures Ecuador has carried out as the Pro Tempore Secretariat of the 5th Space Conference of the Americas and, despite the very limited budget, we have carried out important activities and, in many cases, with the very appreciated support of the international group of experts and the OOSA Secretariat through Niklas Hedman. This has to do with legal themes linked to the implementation of the action plan coming from the Quito Declaration on a regional basis.

The Pro Tempore Secretariat of the 5th Space Conference of the Americas, with the cooperation of OOSA held, on 26-27 August 2008, a seminar entitled: Space law faced with new challenges. The seminar aimed at dealing with regional themes such as, food security, climate change, development of space legislation in international organizations, development of space law in Ecuador and Argentina, establishment of research centres on these themes. Also recommended that we draw up a special regional

policy and that we have a regional map of national capacities of the different applications of space science and technology.

Once we concluded the special space legislation seminar on 28-29 August in Santa Cruz, Galapagos, we held a second meeting of the international group of experts of the Space Conference of the Americas. Following that meeting, the President of the international group of experts and the Pro Tempore Secretariat of the Space Conference subscribed to the document entitled: Conclusions and recommendations of the international group of experts to the Pro Tempore Secretariat of the 5th Space Conference of the Americas for the implementation of its plan of action.

The document established a database for institutions, bodies and decision-makers, in the field of space affairs in order to set up a network and to strengthen the institutionalization in the region of this so as to continue efforts aimed at strengthening the technical and political consultations for the establishment of a regional space commission and the establishment of a mechanism which are able to link the Space Conferences of the Americas with the Space Economic Forum of OECD.

It was also agreed that the third meeting of the international expert group and the Troika should be held in the first semester of 2009, with help from OOSA. The international expert group acknowledged the management undertaken by the Pro Tempore Secretariat in 2007/2008 through these national space camps in Ecuador in 2007, the regional space camps in 2008, the seminar on space law, the third meeting dealing with health, participation in the conference dealing with space and climate change among many others and also decided to reinforce regional programmes especially those dealing with space technology applications.

The Pro Tempore Secretariat is also involved in a process to establish an advisory group in order to set up an Ibero-American centre of research for space law in order to fulfil the recommendations of the international seminar.

Space legislation faced with new challenges, which was held in Quito in August 2008, which counted on participation of members of OOSA, the National Commission for Space Affairs for Argentina as well.

It is also important to point out that, 1-2 April this year, we will be holding a meeting between the members of the Pro Tempore Secretariat, among other

things we will try to establish a memorandum of understanding on space affairs between the Pro Tempore Secretariat and the regional body.

The Pro Tempore Secretariat has special interest in holding the 3rd meeting of the \_\_\_\_ (?) group of experts in May. We are dealing with the following topics, preparation of the 6th Conference of the Americas, working closer with the Troika, internationalization of the Pro Tempore Secretariat and definition of strategies and actions that \_\_\_\_ (?) in order to obtain international cooperation and implementation of the programme of activities for the year.

This process of consultation policies and cooperation in space topics has acquired a dynamic which cannot be stopped now and which should actually become more institutionalized, thanks to the setting up of a regional organization. In this respect Ecuador, as it said during the Galapagos meeting, offered to continue leading the Pro Tempore Secretariat for another year while we try to identify the headquarters for the 6th Space Conference of the Americas. I would like to thank OOSA for its cooperation in these activities.

During the year 2009, we had a remote health seminar for the Amazonian region. In May the third meeting of the international group of experts for the Space Conference of the Americas and the workshop on international cooperation. In May, international space camps. In June, the presentation of the Ecuadorian Commission for Space Development. In July, workshop on the SPIDER project dealing with natural catastrophes, organized by the Pro Tempore Secretariat and OOSA. In November, a meeting among space agencies.

Mr. Chairman, concerning the utilization and nature of the geostationary orbit, my delegation wishes to reiterate that this is a priority topic for Ecuador and, along the lines of the position we have always maintained, it is based on the right to access to this natural resource on behalf of all countries especially developing countries and with specific geographical locations as is ratified in the Constitution of ITU, reviewed in Minneapolis in 1998, as well as the other norms and decisions of the United Nations. For this very reason my delegation wishes to point out that this matter should continue to be part of the agenda of COPUOS. Thank you.

**Mr. CHAIRMAN.** Thank you very much distinguished Ambassador of Ecuador for your statement. I believe that it was again an important statement because you first emphasized the need for

strengthening of international law in utilizing of outer space and you also emphasized that this legal regime for outer space must provide benefits for all human beings.

You then informed us about the establishment of Ecuadorian Commission on the problems of a legal regime of outer space and you emphasized also in this respect the United Nations resolution as elaborated and later on adopted in the Fourth Commission and the General Assembly.

Your statement was very useful because you described here in greater detail the development of actions within the Conference of the American countries and its permanent secretariat that was established in your country and you also advised us about the continuation of this hospitality of your country for this particular body. Also the list of specific actions in the last part of your statement is very useful and it is an evidence of a wide programme that the countries of your region have for the year 2009. Thank you very much.

I have here an application from the distinguished representative of Chile for some comments on this particular statement. You have the floor.

**Mr. R. GONZÁLEZ ANINAT** (Chile) (*interpretation from Spanish*). Thank you very much Mr. Chairman. Let us say we have got off to a good start this morning.

First of all we heard from GRULAC, read by the distinguished Ambassador of Bolivia, who highlights once again the fact that Bolivia should not be absent from this Commission since it carries out important activities in this respect since it has become a member.

The important thing to point out is that not only the declaration he made on behalf of GRULAC but the statement made by my friend, the Ambassador of Ecuador, who has made significant and successful efforts to organize the 5th Space Conference of the Americas and this is all part of a clear description he gave. We have a very systematic process and which, in my opinion from a conceptual viewpoint, is an important and remarkable fact, this is a process that cannot be stopped. We have continued to make efforts that this process would continue and obviously we, member countries of the Space Conference of the Americas, will continue to push for scientific and technological development here and its applications in Latin America.

We are faced with big problems like food security, climate change and great opportunities such as distance education, all of these are indispensable tools to narrow the gap that has threatened the dignity of our peoples and their development. So it is not a coincidence that my country is going to be part of the launching of a Earth observation satellite and is going to set up a civil space agency.

I remember during the 5th Space Conference of the Americas I had to lead some political negotiations and thanks to my friend Ambassador Stacey, present here, in an act of generosity which I would like to thank him for now.

In the part dealing with recommendations and resolutions, there are at least three countries that made requests to become members of the 7th Conference of the Americas, I do not remember exactly the countries but there were three that made this request. In the proceedings of the meeting and I would just like to say that we are very pleased to hear these presentations, pleased to have these requests and we are very anxious to see all this become a reality.

In addition, there were ad hoc observers, Guatemala, for the 7th Conference of the Americas and based on a General Assembly resolution \_\_\_\_ (?) seventy-second session, which has not been revoked at least to our knowledge. So we have a whole series of possibilities for this Space Conference of the Americas to continue its path.

I think we are in a position to act very responsibly vis-à-vis our history and our citizens. We have been given this great responsibility in front of them, this access to information, access to education, to all these elements as I said that will help us boost the development and, in the light of the current crisis, this takes on a special significance and importance, so, I would find it hard to imagine that those countries that are willing to host the upcoming Space Conference of the Americas have given ample proof of their seriousness and their credentials in terms of this responsibility.

I take the floor during this plenary and I would ask that this be included in the report that Ecuador, with a great deal of skill during the meetings of the Pro Tempore Secretariat and the international group of experts, gave everything a very legal approach which is something that needs to be preserved.

Within the framework of this Subcommittee that you are leading and under your wise leadership, I would ask you formally, Sir, that we include this in the

report that there is this commitment that has been \_\_\_\_ (?) by GRULAC along the lines of what has been said in the statement made by the distinguished representative of Ecuador. In light of the pertinent resolutions of the United Nations on this subject and the position of my country, I am sure we all agree on in Latin America, that is that all member countries of the Space Conference of the Americas are ready and willing to obtain the commitment that was obtained in Quito to be consolidated in a very short period of time, let us say not later than the end of 2010, taking into account the bureaucracy. We would be remiss if we did not do this vis-à-vis our citizens. Thank you.

**Mr. CHAIRMAN.** Thank you very much distinguished Ambassador of Chile for your contribution by which you completed the report submitted by the distinguished representative of Bolivia and by the statement of the distinguished Ambassador of Ecuador. I believe that in this way the Subcommittee has received a wide picture of the activities of the Space Conference of the Americas and of its Pro Tempore Secretariat of the international group of experts and other organizations established and active in the framework of the Space Conference. Thank you very much once again

I now give the floor to the distinguished representative of the Bolivarian Republic of Venezuela.

**Ms. T. OROPEZA** (Bolivarian Republic of Venezuela) (*interpretation from Spanish*). Thank you very much Mr. Chairman. On behalf of the delegation of Venezuela I would like to congratulate you on your election as the Chair of this Subcommittee and express our belief that under your leadership the work in this session will be fully successful.

Mr. Chairman, since 1999, the Bolivarian Republic of Venezuela has recognized the advantages of science and technology in space as fundamental tools to promote well-being and social cohesion and we have assumed big responsibilities in the tasks of designing and implementing a public policy in this regard aimed at promoting social programmes and satisfying the governmental demands in the fields of telecommunications, Earth observation and other areas of national interest.

The concrete actions of the Venezuelan government are based on article 11 and 110 of our Constitution which set up the National Commission for the Exploration and Utilization of Space for Peaceful Ends, the Venezuelan Presidential Commission for the Peaceful Use of Space, the Venezuelan Space Centre

Foundation and, lastly, the Bolivarian Agency for Space Activities, ABAE, set up in 2008.

To be more concrete, on 1 January 2008, ABAE was set up, created by a law passed in August 2007, published in the official government bulletin No. 38,796, dated 25 October 2007. ABAE is an independent institution under the aegis of the Minister of People's Power for Science and Technology. Among its tasks is to provide public policy in the field of space that can be implemented and developed as a fundamental tool for the consolidation of a political process which aims at social justice.

We are about to start a new stage of development too within the field of Venezuelan space development as well as in the Caribbean and South American regions. The national priorities in the short-term are aiming at setting up a satellite platform for the interconnection of telecommunications networks of our government and for the new social economy model. Employing space technologies in all fields of public activity, assisting information of projects that help in decision-making in the fields of energy, agriculture, health, education, environment, planning, territorial surveillance and risk management as well as a setting up of the building of national capacities, training of human resources which will allow us to develop our technological potential.

At this point in time we are maintaining our compromise to consolidate international peace and security as well as strengthening cooperation amongst countries of the world, reiterating in all multinational fora our adhesion and respect for the legal principles on which the exploration and utilization of outer space to peaceful ends is based. Hence the Bolivarian Government has reached a milestone in its history in planning, designing and implementing a public policy for the peaceful use of space including the institutions that have the tasks of implementing them.

Mr. Chairman, coming back to our national programme. VENESAT1, the Simón Bolívar satellite, is the concrete expression of the achievements of the government in the application of new technologies for peaceful and social ends. VENESAT1 is made up of three components, a space segment first of all which is the satellite itself, the Earth segment or Earth stations and teleport and third, technology transfer, that is training of human resources. The fundamental objective here is to provide the people of Venezuela with telecommunications and services in order to boost the standard of living of our citizens especially those sectors of the population that are in remote areas from communication links. Also it helps us to promote

cultural education, health and sustainable development, for example, rural telephony and Internet access, remote health programmes and education programmes, broadcasting \_\_\_\_ (?) throughout all of the national territory allowing people to access content that will help strengthen our cultural identity, strengthen the endogenous technology production and boost the national sovereignty. In addition, the footprint of the satellite covers the Caribbean and South America, this will help facilitate regional integration and strengthen the links with other countries.

The Simón Bolívar satellite was designed and manufactured in cooperation with the People's Republic of China, with the active participation of national professionals who are part of all of the process. On 29 October 2008, the Bolivarian Republic of Venezuela launched VENESAT1, the Simón Bolívar satellite, from Xichang, China. There is an important element in the international cooperation programme for VENESAT1 and that is technology transfer which was possible thanks to the training of human resources.

During the initial part of the programme, the training process involved a group of fellowships given to professionals on a masters and doctoral level in space technology. These young people were also part of a special training scheme in the installations themselves where the programme was developed in order to give them practical knowledge. In addition, a group of students in doctorate and masters degrees, in March 2007, also worked with a group of national professionals to be trained as operators for the Earth installations for the Simón Bolívar satellite. We have 90 professionals specialized in different technology areas supplied to telecommunications backed up by the Chinese Academy of Space Technology, the Aeronautics and Astronautics University of Beijing and the General Monitoring Centre and Launching Centre for the Chinese satellite. Other topics, Earth observation, technology applications, social programmes and diagnostic functions are all part of space technology.

Concerning Earth observation. Main operations have been based on the CVPR, our remote sensing centre and in programming, acquiring and processing different satellite images from Earth observation for free distribution among the different entities of the Venezuelan Government. Through the SPOT 5 terminal we receive and distribute satellite images, SPOT 4 and 5 images with the resolutions of 2.55, 10 and 20 metres. Currently we have received 20,927 images which have been archived and catalogued since October 2007 to January 2009.

ABAE concentrates part of activities on training for processing satellite images in order to be of assistance in taking public sector decisions. In 2008 we had the second edition of a course in geomatics applied to the areas of agriculture and soil, forest resources and ecology, geosciences, water resources, digital photometry, geo-information sciences, geological risks and hydro-meteorological risks. These courses are given in the Remote Sensing Institute of the Republic of India in the city of Dehra Dun. They last ten months and we had nine professionals from different ministries participating in the above mentioned areas.

The strategic programme for the training of teachers and educators using satellite images for social and environmental analysis. This programme has to do with using satellite images as applied to teaching activities with the training manual that will help facilitate the multiple effectiveness among members of the educational community.

Social programmes now. Here the idea is to motivate different actors of the public administration so they include this technological resource in their projects, again using the Simón Bolívar satellite.

Mr. Chairman, we have to say that the space activities of Venezuela in the twenty-first century are aimed at consolidating the scientific and technological processes as well as innovation, training and promotion of talent, international cooperation and, Caribbean and South American integration in order to guarantee the sovereign development of all in this field. All of this will be able to be achieved to a great extent, thanks to international cooperation, the policy of South-South integration promoted by the Venezuelan Government, in helping to build up a very sound network of cooperation which will allow us to reach our objectives.

To date the Bolivarian Agency for Space Activities has held several international meetings and attended others for the peaceful uses of outer space. We have set up a working group, along with representatives of the Ministry of People's Power, for foreign relations looking at the review of international treaties, their adhesion and ratification in cases where this is advisable as well as an analysis of the strategies of subscription to instruments of bilateral, multilateral cooperation in the area of space. In this respect, this past year, we were able to draw up and discuss bilateral cooperation instruments with Russia and France. We subscribed to a space agreement with Brazil, we were able to make progress in the implementation of programmes of cooperation, on a bilateral basis, with China and India.

Mr. Chairman to conclude, this delegation, in full respect of international norms that are the foundation for the use of outer space, believe that it is imperative that the international community become aware of the world issues that arise in the different uses that can be employed for outer space, sometimes deviating these from the peaceful goal which is the foundation of their use. We believe that it is indispensable that this said Committee increase its interaction with the Technical Affairs Subcommittee with an aim to promoting international norms that are binding in nature and which cover topics linked to the use of nuclear energy sources in outer space, space debris, as well as other important topics, bearing in mind that one of the main tasks of the United Nations, in the legal sphere, is to promote progressive development of international law and its regulation and, in this case, with respect to the environment and space in addition to the demands made in the COPOUS reports specifically those coming from the fifty-first session which clearly expressed this need. \_\_\_\_ (?) that I have just said, we need to strengthen the international legal framework on this theme along the lines of international law in order to maintain peace, international security, to develop cooperation and protection of the environment and life on this planet.

Lastly, on behalf of my government, I would like to reiterate our full disposition to cooperate, to contribute to a productive debate and that the work of this session be crowned with success. Thank you.

**The CHAIRMAN.** Thank you distinguished representative of the Bolivarian Republic of Venezuela, Ms. Tatiana Oropeza, for your statement which again brought us a wide picture. First of all of the endeavours of the government of your country and of its activities in the field of peaceful utilization of outer space.

In the beginning you informed us about the establishment of the Comisión Nacional para la Exploración y Utilización del Espacio Ultraterrestre con Fines Pacíficos in 2004 and also about the Agencia Bolivariana para Actividades Espaciales, ABAE, in 2008.

You then developed your statement informing us about the main trends in your national activities. Much attention is paid to telecommunications services and, of course, also to increasing the cultural education of your people.

You then informed us about the satellite, Simón Bolívar, that was launched in cooperation with the Chinese People's Republic and was launched from the

launch pad in China. Quite interesting for all of us is the fact that you dispose of a relatively large group of professionals, you said 90 professionals, specializing in different areas of the satellite technology and in the application of satellite technology and you also informed us about the operations of the Venezuelan Centre on Remote Sensing.

You then turned to the project of applications of the satellite technology in different aspects of the social programme. You then emphasized the need for international cooperation and, in this respect, you indicated that you concluded a number of bilateral agreements, for example, with Russia, France, Brazil, China and India. You emphasized finally that the principle of peaceful exploration is the basis of your endeavours and all your efforts in this field. You also emphasized the need for the promotion of the progressive development of international space law.

Thank you very much, distinguished representative of Venezuela and I now give the floor to the distinguished representative of Italy, Professor Sergio Marchisio.

**Mr. S. MARCHISIO (Italy).** Thank you Mr. Chairman. Mr. Chairman, the Italian delegation is pleased to congratulate you on your chairmanship of this Subcommittee and to express its conviction that, under your wise leadership, this session will reach remarkable results.

My delegation would also like to extend its congratulations to the Director and the staff of the Office for Outer Space Affairs for their support to the organization of our deliberations.

Mr. Chairman, space preparation agreements and other kinds of legal instruments regulating joint ventures and programmes are a fundamental pillar of Italian space bodies, promoted and managed by the Italian Space Agency. Apart from the agreements in force with traditional parties, in 2008 new areas of cooperation have been covered with new partners such as Brazil, Chile, the Republic of Korea, Egypt and Ukraine.

The main fields dealt with by these agreements are Earth observation, high energy astrophysics, cosmology and fundamental physics, telecommunication and navigation, management of natural disasters, medicine and bio-technology, space transportation and space education. These activities complete a \_\_\_\_ (?) of cooperation to which Italy is committed within the programmes of the European Space Agency and the other initiatives led by the



European Union. In particular, Italy is the main sponsor of the Vega European launcher, included in ESA programmes, with 65 per cent of the total cost. Vega is a small launch vehicle for satellites up to 1.5 tons in low Earth orbit. This programme includes development both of the launcher and of the ground infrastructures of the Space Center of Guyana which has been necessary for the integration of the launch vector. The year 2008 was marked with a series of successful firing tests of solid rocket motors that confirm the performance capability of the Vega launch system.

Mr. Chairman, the Italian delegation has always \_\_\_\_\_(?) essential the action and the role of the Legal Subcommittee in strengthening the existing United Nations treaties and principles, by committing the State Parties to comply with them, to make progress towards adherence to them, to implement them in any manner, including through national legislation, and to promote their universality. At the same time, it considers that the strengthening of the security of activities in outer space is an important objective in the context of expanding outer space activities.

Italy fully subscribes to the following main principles that should guide the outer space activities, freedom of access to outer space for all for peaceful purposes, preservation of the security and integrity of space objects in orbit and, due consideration for the legitimate defence interests of States. In this line, Italy supports any initiative aimed at ensuring the safety, security and predictability of the outer space activities by codifying best practices, standards and technical norms concerning outer space operations and whose aim is to limit or minimize harmful interferences in outer space.

The unprecedented collision of a defunct Russian satellite and a US-made commercial satellite, that occurred in February 2009, clearly proved the usefulness of this approach. In this vein, Italy fully supports the draft code of conduct for outer space activities, endorsed by the Council of the European Union on 8-9 December 2008, and open now for consultations with other countries. At the same time, Italy welcomes the adoption of the preparatory programme on space situation and awareness of the European Space Agency for the period 2009-2012 which will support the understanding and maintaining awareness of the Earth orbital population, the space environment and possible threats thereof.

In the same context, Italy actively contributed to the adoption of the United Nations Space Debris Mitigation Guidelines. It is firmly committed to their

implementation at the national level, through the action of the Italian Space Agency. Major details concerning this implementation will be provided when item 10 of the agenda, general exchange of information on national mechanisms relating to space debris mitigation measures will be open for discussion during this session.

With regard to item 7 of the agenda on possible revision of the principles concerning the use of nuclear power sources in outer space, the Italian delegation welcomes the adoption of the draft framework of nuclear power sources application in outer space during the last session of the Scientific and Technical Subcommittee. However, it shares the view expressed by other delegations that this result should be improved at the appropriate time.

Mr. Chairman, my delegation welcomes the discussion that the Subcommittee will devote to agenda item 11, general exchange of information on national legislation relevant to the peaceful exploration and use of outer space. We are convinced that this examination of the existing legislation and practices would help us in identifying common principles, norms and procedures and the solutions which are more adequate with respect to our national interests, needs and peculiarities.

The Italian legislation on outer space activities developed progressively in a different time and in a context where outer space activities were conducted mainly by entities of public nature. The issue of compensation for damages caused by objects launched in outer space was first covered by the Italian rule 23 of 1983. It is an instrument for implementing the 1972 Liability Convention and which applies to damages caused by objects launched into outer space by a State Party to the 1972 Convention. This legislation aims at protecting more extensively than the Convention, the potential victims of damages. After the increasing of launching activities and the acceptance by Italy of the 1975 Convention on the Registration of Objects Launched into Outer Space, rule 153 of July 2005 on the registration of space objects has been adopted, filling another gap in the Italian legal system.

The authorizations and licences for the operation of telecommunication systems, terrestrial and space segments, are regulated in their turn by rules and procedures of an administrative nature under the supervision of the national authority for telecommunications and in conformity with the relevant directives on telecommunications of the European community.

On 24 October 2008, the third COSMO-SkyMed satellite was successfully launched by the US Vandenberg Base in California and the launch of the fourth, and the last, satellite is planned for the beginning of 2010. No specific legislation for the distribution of data from remote sensing activities is in force, however, the development of the COSMO-SkyMed system is the first national Earth observation system has led to the adoption of regulations concerning a national data policy in conformity with the agreement with France of 2001. In line with this most recent development, Italy is thus intensifying the efforts aimed at elaborating a comprehensive legislation on space activities, fully addressing the requirements established by article VI of the Outer Space Treaty. The Legal Subcommittee work will then be instrumental to the debate on such a legislative perspective at the national level.

Mr. Chairman, the Italian delegation would like to briefly comment on item 8 of the agenda, namely, examination and review of the developments concerning the draft protocol on matters specific to space assets to the Convention on International Interests in Mobile Equipment. In fact, 2008 registered substantial progress in the process of negotiation and brought several promising news. Already in 2007, the international work reached the conclusion that a certain degree of simplification of the text of the draft protocol was needed, in particular that the sphere of application of the draft protocol should be narrowed so as to concentrate essentially on the satellite, a knowledge as representing 80 per cent of the space assets, currently the subject of the type of financing envisaged by the 2001 Cape Town Convention.

Furthermore, in November 2007, the General Assembly of UNIDROIT established a Steering Committee to build a broad consensus around the conclusions reached during the intersessional work. This steering committee is composed by the government and representatives of the international, commercial, space, financial and insurance communities that had participated in intersessional meetings. In 2008, the Steering Committee met twice, in Berlin, firstly at the invitation of the Ministry of Justice of Germany and then of Commerzbank.

The Italian delegation would like to share with members States of the Legal Subcommittee satisfaction for the results of these meetings. In fact, several outstanding issues have been cleared up, such as those concerning the sphere of application of the draft protocol, the definition of space assets and the extension of the Cape Town Convention is applied to space assets to cover debtors rights and related rights.

Furthermore, it has been also agreed that the draft protocol should only address remedies that affected physically linked assets, such as the physical movement of a satellite from one orbit to another and their ability to generate revenue. The Italian delegation is aware that the process still requires further steps but is confident that the next meeting of the Steering Committee, to be held in Paris at the beginning of May, will be able to pave the way for the final phase of the negotiation process with the reconvening, in Rome, of the third session of the Committee of Governmental Experts. The diplomatic conference will then adopt the final text of the protocol and open it for the signature of States. More details on this process will be provided shortly by the distinguished observer from UNIDROIT in his report to this Subcommittee in respect to the draft protocol.

Mr. Chairman, finally, with reference to the item of our agenda concerning capacity-building in space law, the Italian delegation would like to express its deep appreciation for the progress made in the preparation of the curriculum for a basic course in space law that could be included in the education programmes of the regional centres on Space and Technology Education affiliated to the United Nations. We took note with satisfaction that a first draft will be circulated during this session as a result of the work realized by the group of experts gathered at the end of 2007 with the support of OOSA. The Italian delegation would like to underline that this exercise is a tool for the dissemination of the knowledge of space law especially in developing countries. We will inform the Secretariat in due time about the potential extension to space law of the educational space initiatives carried out by the Italian Space Agency, in partnership with Mario Gulich Institute of Cordoba, Argentina, which promotes high level space studies in Earth observation, and the activities realized under the intergovernmental agreement with Kenya regarding the San Marco project in Malindi. Thank you very much.

**The CHAIRMAN.** Thank you distinguished representative of Italy, Professor Sergio Marchisio, for his statement on behalf of his country.

I appreciate that, in the beginning, he emphasized the space cooperation agreement and other kinds of legal instruments regulating joint ventures and programmes are a fundamental pillar of the Italian space policy. He also emphasized that the activities complete the framework of cooperation to which Italy is committed with the programmes of the European Space Agency and other initiatives led by the European Union.

He then informed us about the projects of the Vega European Launcher in which Italy takes a very substantive part with 65 per cent of the total cost, so congratulations on this participation.

The representative of Italy then subscribed the three main principles of space policy that are shared by all members of the European Space Agency and also by State members of the European Union. You then endorsed also the efforts for strengthening the international cooperation by a draft code of conduct for outer space activities, endorsed by the Council of the European Union in December 2008.

You then turned your interest to the problem of space debris and welcomed the adoption of the United Nations Space Debris Mitigation Guidelines and welcomed the point of the agenda called general exchange of information on national mechanisms relating to space debris mitigation measures to be opened for discussion at this session of the Legal Subcommittee. You also welcomed the results of the working group of the Scientific and Technical Subcommittee and the joint group of experts of the Scientific and Technical Subcommittee and the Atomic Energy, here in Vienna, and the elaboration of the draft framework of nuclear power sources application in outer space. However, you also mentioned that you shared the view expressed by other delegations that these results should be improved, at the appropriate time, so further consideration of the technical criteria concerning the protection of humans in outer space.

You then commented on some other points of the agenda of the present session of the Subcommittee and informed us briefly about the development of national legislation in Italy that started by an Italian law of 1983 dealing with damages caused by space objects and continuing through other instruments of the national legislation in Italy. What is very interesting for us that you are intensifying the efforts aimed at elaborating a comprehensive legislation on space activities fully addressing the requirements established by article VI of the 1967 Outer Space Treaty.

I think that we should welcome your information on the new developments concerning the draft protocol on matters specific to space assets to the Convention on International Interests in Mobile Equipment, particularly the dealings of a steering committee that was established by UNIDROIT and which had two sessions and the third one is being prepared for May this year. As you said, this would enable, hopefully, the final phase of the negotiations process with the reconvening in Rome of the third session of the Committee of Governmental Experts, of

which you have been the Chairman. We expect that the Deputy Secretary-General of UNIDROIT, Mr. Martin Stanford, would come to the session of the Legal Subcommittee, the advice is that he could \_\_\_\_ (?) early next week, on Monday, and will provide for us other detailed information about the process and progress in discussions on this issue.

Finally, you also addressed the point of capacity-building in space law and informed us about the Italian input in this particular area.

Thank you very much once again, distinguished representative of Italy and I now give the floor to the distinguished representative of India, Ambassador Kumar.

**Mr. S. KUMAR** (India). Thank you Mr. Chairman. Mr. Chairman it is a matter of great satisfaction for the Indian delegation to participate in this forty-eighth session of the Legal Subcommittee, we are confident that under your experienced stewardship the Subcommittee will achieve good progress on all matters on its agenda. I take this opportunity to assure you of the wholehearted cooperation and support of the Indian delegation in addressing the many important issues that await our attention. We would also like to thank Director Dr. Othman and her colleagues in the Office for Outer Space Affairs for the excellent documentation and all-round support for the work of COPUOS in general.

Mr. Chairman, the Indian delegation would also like to place on record its appreciation to the International Institute of Space Law and the European Centre for Space Law for organizing the symposium on the 30th anniversary of the Moon Agreement, it was very timely and brought out many interesting aspects of lunar exploration and issues relating to exploitation of lunar resources.

Permit me, Mr. Chairman, to share with the distinguished members of the Subcommittee a brief account of advances made by the Indian space programme since our last session.

2008 was a particularly satisfying year for us with a number of landmark achievements recorded during this period. The PSLV-C9 launched the 13th consecutive successful flight of India's polar satellite launch vehicle \_\_\_\_ (?) on 28 April 2008, has placed ten satellites in low Earth orbits, this includes India's latest remote sensing satellite, CARTOSAT-2A, the Indian mini-satellite, IMS-1, and eight other nano-satellites, built by universities and research institutions in Canada, Denmark, Japan, Germany and the

Netherlands. India also successfully launched its first lunar mission, Chandrayaan-1, on board the PSLV-C11 on 22 October 2008, joining humanity's quest for exploring the lunar environment. The Chandrayaan-1 spacecraft weighing 1380 kilograms, carried 11 scientific instruments operating in various spectral bands of the electro-magnetic spectrum of which five are from Indian institutions and six from the international scientific community as guest payloads.

Mr. Chairman, building upon these and other successes, many more launches are scheduled for 2009 to further augment our constellation of remote sensing and communication satellites. Follow-on missions are planned for this year, missions like OCEANSAT-2 and RESOURCESAT-2 for natural resources and ocean applications, \_\_\_\_\_(?)SAT-1 the first microwave remote sensing mission of India, Megha Tropiques a giant Indo-French mission for atmospheric studies and a few communication and meteorological satellites in geostationary platforms.

Several mini- and nano-satellites, from various Indian and foreign academic institutions, are also planned for 2009 in piggy-back mode on board our PSLV missions.

In respect of space applications, progress made previously in integrating space technology with national development goals, in vital services such as telecommunications, television broadcasting, meteorology, disaster management as well as natural resources survey and management, continued \_\_\_\_\_(?), so also, in the key social sectors of education, health and grass roots development.

The tele-education project, started a couple of years back, covers more than 34,000 classrooms today providing quality education and training across the country. The telemedicine network, yet another societal programme that has been functioning very successfully, has been expanded to cover 337 hospitals of which 280 are in the rural areas with 12 mobile \_\_\_\_\_(?) covering remote and inaccessible parts of the country. The village resource centres are a unique techno-societal application have been offering valuable services, such as information on natural resources for planning and development at the grass roots level, interactive advisories on agriculture, fisheries, land and water resources management, livestock management, etc. besides tele-education and telemedicine facilities. The network has been successfully enhanced to include 466 villages, including 45 expert centres.

Mr. Chairman, capacity-building in the field of international space law, both domestically and

internationally, through sharing our experience and expertise with others, has been a hallmark of the Indian space programme.

The Indian Space Research Organisation, ISRO, has, since 2004, encouraged participation of Indian law students in the Manfred Lachs Space Law Moot Court Competition. ISRO also supports, financially and materially, legal research activities on contemporary issues in outer space activities by premier academic institutions in India. We are happy to inform this forum that the Nalsar University of Law in Hyderabad, India, has established a centre for air and space law and is pursuing research in this specialized area.

Likewise, Mr. Chairman, India takes special interest in providing expertise and services for capacity-building in the application of space technology in developing countries. The UN Centre for Space Science and Technology Education for the Asia and Pacific region, operating from India, is an initiative in this direction. The Centre has so far carried out 28 post-graduate programmes of nine months duration. In addition, it organized 19 short-term courses and workshops. So far, 824 scholars from 31 countries from the Asia-Pacific region and 27 scholars from 17 countries outside the region have benefited from the educational activities of the Centre. Our distinguished colleague from Venezuela had also referred to this in the statement just now.

In addition to capacity-building, international cooperation in general has always occupied an important place in the Indian space programme. The successful realization of the lunar mission is a hallmark in this regard and the Chandrayaan mission was fittingly awarded the Mission of the Year 2008 for international cooperation by the International Lunar Exploration Working Group recently. Both the PSLV launchers in 2008 carried satellites and specific instruments on behalf of others in the international space community demonstrating India's commitment to sharing its successes with all.

India's cooperation with space agencies and related establishments of other countries finds expression in new bilateral agreements and MOUs concluded with the space agencies of Egypt, Kazakhstan and Chile besides NASA, NOAA, JAXA, CNES and other French agencies. An international conference on science and application of the Megha Tropiques mission, an ISRO/CNES joint project, is being held right now at Bangalore for the last three days.

This is the background and context, Mr. Chairman, in which we approach the legal aspects of space activities. We reaffirm our view that the five UN space treaties, evolved through consensus and accepted by a large number of countries, constitute the cornerstone of international space law. We favour universal adherence to these treaties. Review of the status and application of these five treaties is important for encouraging States which are yet to accede to them, to do so.

The Indian delegation is of the view that the geostationary orbit is an integral part of outer space and is therefore governed by the Outer Space Treaty. Our discussions on this issue and on the subject of the definition and delimitation of outer space are crucial to arriving at a common understanding in this regard.

Mr. Chairman, we would like to reiterate our commitment to the use of outer space for peaceful purposes. We favour development of legal principles and guidelines in the framework of the existing legal regime of space law for facilitating peaceful use and exploration of outer space by all countries, developing countries in particular. We believe that it is the responsibility of every nation to maintain outer space exclusively for peaceful purposes and refrain from trying new ventures that are violating of the very concept of peaceful use of outer space.

In this context, we are of the view that mitigation of space debris is of the utmost importance as it poses obvious dangers to all space assets and their applications for peaceful purposes. The collision and other incidents in space in recent years underlines the need for space-faring nations to coordinate their activities for tracking, monitoring and disseminating information on space debris in a transparent and responsible manner.

The Indian delegation would like to caution that \_\_\_\_ (?) conduct of space exploration activities in the future will largely depend on observance of the Space Debris Mitigation Guidelines by all space-faring nations. We would urge all member States to follow the Space Debris Mitigation Guidelines, endorsed by the UN General Assembly, in letter and spirit and to respect the sovereign right of every country to gain access to space and avail of opportunities to utilize space for peaceful purposes. Assured safety and security of the space assets and capabilities of all countries, without denial or threat of denial of access to space, is in the interest of all and of paramount importance for prospering together.

We are confident that our deliberations in this august body will contribute significantly towards that goal. Thank you Mr. Chairman.

**The CHAIRMAN.** Thank you distinguished Ambassador of India for your statement by which you, first of all, informed us about the projects and further endeavours of India in the peaceful activities in outer space and in which you also took the position, with the regard to the points of our agenda for this and next year's programme.

We particularly watched very carefully to some information on your own activities, for example, that India has placed 10 satellites in low Earth orbit and, of course, with great interest we watched your information about the first lunar mission, Chandrayaan-1, and which was effected in October 2008. What was quite interesting for us, and it should be indeed once again mentioned here, that this lunar mission carried 11 scientific instruments but important is that of this total number of 11 instruments, five were from India and six from the international scientific community as guest payloads. This is an example of excellent international cooperation. You then informed us about the further launches that are scheduled for the year 2009.

Then of course very interesting and valuable was the part of your statement dealing with some projects that have been developed now for years in the field of societal needs, for example, your very well-known tele-education projects which continue and now covers more than 34,000 classrooms, a very impressive number. Or your telemedicine network, another societal programme that has been functioning to cover 337 hospitals, of which 280 are in rural areas, this is indeed very, very important. Similarly, the Village Resource Centres, a unique techno-societal application have been offering valuable services.

I would also turn the interest of the delegations to your input for the capacity-building programme in space law which has been offered and accomplished by Indian universities, particularly by the National Law School of India University in Bangalore.

In the second part of your presentation, you also took position with regard to the United Nations space treaties and other UN documents. You reaffirmed your view that the five UN space treaties, worked through consensus and accepted by a large number of countries, constitute the cornerstone of international space law and that India favours universal adherence to these treaties.

Then you also expressed an important view relating to the geostationary orbit, that they are an integral part of outer space and are thus governed by the Outer Space Treaty. Also you emphasized that the discussions on this issue and also on the subject of definition and delimitation of outer space are crucial to arrive at a common understanding in this regard.

In the final part of your statement you reiterated the commitment of India to the use of outer space for peaceful means and also for the responsibility of every nation to maintain outer space exclusively for peaceful purposes and refrain from trying new ventures that are violative of the very concept of the peaceful use of outer space.

Finally, you also took position with regard to the problem of space debris and its mitigation as was effected by the adoption of the Space Debris Mitigation Guidelines and endorsed by the United Nations.

Thank you very much for your statement, Mr. Ambassador.

I now give the floor to the last speaker on my list. If I am saying the last speaker, I would like to pay attention to all delegations that might be wishing to make a statement, to apply for this list of speakers because we intend to conclude this discussion on point 3 of our agenda, general exchange of views, this morning.

Now I give the floor to Mr. Nabiollah Shirazi from the Islamic Republic of Iran.

**Mr. N. SHIRAZI** (Islamic Republic of Iran). Thank you. In the name of God, compassionate and merciful.

Mr. Chairman, the delegation of the Islamic Republic of Iran would like to join the previous speakers in expressing its satisfaction in seeing you once again presiding over the Legal Subcommittee of COPUOS. We appreciate your able leadership. Our profound appreciation also goes to Madam Mazlan Othman, Director of UNOOSA and her able colleagues and all UNOOSA staff for their efforts in promoting international cooperation in the peaceful uses of outer space.

Mr. Chairman, permit me to briefly underscore some general points that is of most importance for my delegation and seem to be common views and shared concerns of a large number of member States. In this context, my delegation wishes just to recall the core principles and rules governing exploration and peaceful

use of outer space. They are already fundamental principles which have already been laid down in the legal United Nations treaties on outer space.

Outer space as the province of all mankind should be freely accessible to all States, the fundamental principle which is stipulated in the treaties. All countries, irrespective of their degree of economic or scientific development have equal rights to enjoy potential benefits \_\_\_\_(?).

In practical terms, much more effort is required to enable all nations to take certain advantage in an equal manner, in particular those who live in developing countries. Outer space is regarded as a common heritage of all mankind, must be preserved from a \_\_\_\_(?) arms race. We are fully convinced that a global negotiated, transparent and indiscriminative approach is necessary in this regard. That could constitute a part of actions to be made for strengthening the international peace and security.

Irrational and indiscriminatory exploitation of the geostationary orbit, as a limited natural resource, is also a common concern of all developing countries. The Islamic Republic of Iran shared the views expressed under equitable and fair access of all States, particularly taking into account the needs and interests of developing countries.

My delegation believes that the United Nations Committee on the Peaceful Uses of Outer Space played a pivotal role in setting up the core principle of space law and has the same role for upholding and strengthening them.

Mr. Chairman, bearing in mind the extreme importance of space activities in sustainable development, the Islamic Republic of Iran took remarkable steps to develop its space programme. Iran, as a founding member of COPUOS, while developing programmes for the peaceful use of outer space firmly remains committed to its international obligations emanating from the UN treaties to which it is a Party. The Islamic Republic of Iran also faithfully takes into consideration the measures suggested by the other relevant UN legal instruments on the peaceful use of outer space.

Over the past year, the Islamic Republic of Iran made remarkable progress in its space activities. The most significant one was the launching of the Omid satellite. On 2 February 2009, Iran successfully launched the indigenously-made satellite launch vehicle, named Safir-2, carrying Iran's first home-built telecommunications satellite, called Omid. The

placement of the satellite in low Earth orbit was successfully accomplished. That has definitely marked a significant step forward towards further development of space technology in Iran.

The Islamic Republic of Iran alongside with its scientific and technical programmes, placed equal importance on plans and programmes to include capacity-building in space law. To this end, the Iranian Space Agency has already begun preparatory work including solar projects in cooperation with national, academic and research centres.

This is also a pleasure to announce that a workshop on space law is due to be held in Tehran in November 2009. The Iranian Space Agency, in close cooperation with UNOOSA, is the organizer of the workshop. This workshop is the second one in Iran over the past three years. The first workshop on space law was held in Tehran in November 2007, which received a broad expert participation from Iran and abroad.

Mr. Chairman, the Islamic Republic of Iran, having developed programmes for building capacity in space technology and its applications, attach a high priority to international cooperation which has fallen within the framework of COPUOS. Having said that, Mr. Chairman, the delegation of the Islamic Republic of Iran is confident that under your able leadership this meeting will achieve its expected constructive results and I assure you of my delegation's full cooperation to this end. I thank you, Mr. Chairman.

**The CHAIRMAN.** Thank you distinguished representative of the Islamic Republic of Iran for your statement in which you first underscored some general principles which seem to be common view and shared concerns of all member States. You also emphasized that Iran just wants to recall the core principles and rules governing the exploration and peaceful use of outer space as valid rules on governing space activities.

You then briefly commented some of these principles that you consider as very important for your country. You also said that your delegation believed that the United Nations Committee on the Peaceful Uses of Outer Space which played a pivotal role in setting up the core principles of space law, had the same role for upholding and strengthening them.

What is important also was your statement that Iran, as a founding member of COPUOS, while developing programmes for the peaceful use of outer space, firmly remains committed to its international

obligations emanating from the United Nations treaties to which it is a Party.

You then informed us about some remarkable activities in the Islamic Republic of Iran in the field of peaceful activities in outer space and you also placed equal importance on the plans and programmes to improve capacity-building in space law. You informed us about the offer to organize the space law workshop of the United Nations in Tehran that should be effected in November 2009. You also reminded us that this should be the second action of this kind, that already one workshop, it was not of the United Nations but organized by your country, was already held in November 2007.

Finally, you attached a high priority to the international cooperation which has fallen within the framework of the Committee on the Peaceful Uses of Outer Space of the United Nations.

Thank you very much distinguished representative of Iran for your statement.

Ladies and gentlemen, I no longer have the name of any country on the list of speakers for this morning on this particular item, general exchange of views.

Is any other delegation wishing to speak? I recognize the distinguished representative of Greece.

**Mr. V. CASSAPOGLOU** (Greece) (*interpretation from French*). Thank you very much Mr. Chairman.

Mr. Chairman, if I might, I would like to make some comments with regard to time management. Sometimes, I get the impression that we are participating in a session of the Scientific and Technical Subcommittee not the Legal Subcommittee and through you, Mr. Chairman, I would like to ask my colleagues, most of whom are lawyers, legal experts, what they think.

We truly admire the accomplishments of their respective countries in the area of technology but, first of all, unfortunately we are not qualified enough to analyse these technological accomplishments and, on the other hand, given the very limited time that we have at our disposal, it is really going too far. It is really not justifiable to devote so much time to discussing science and technology. We have a mandate in this Subcommittee and our mandate is to limit ourselves to legal issues and you are more aware of it than I am of course. You, yourself, attended the very

first session of the ad hoc committee, as it was called at that time, which was later named the Legal Subcommittee of COPOUS. You are well aware of the mandate of this Committee and I think this is a comment that had to be made and, through you, Mr. Chairman, had to be conveyed to other colleagues here. Please, to the extent possible, let us confine ourselves in our discussion to strictly and exclusively legal issues that have to do with the legal framework for space activities of our respective countries.

Now, Mr. Chairman, with your indulgence, I would like to make a short correction of your summary. The summary that you offered with regard to the statement made by our distinguished friend and colleague from Italy. It has to do with the fundamental principles espoused by the European Union with regard to space activities. You said that these principles and, there are three of them and they were enunciated here by my distinguished colleague from Italy, that these are the principles of the European Union, that is not the case. In fact, the principles are mentioned in the provisional text submitted in the form of a draft code of conduct within the framework of that Organization and it was approved at the beginning of December 2008 by the European Union. But it is still a draft, it is evolving almost on a daily basis, it addresses space activities of a vast array of countries, not just the European Union but Russia, China and Korea, recently the two Koreas, and this is something open to a large number of countries so, once again, these are not principles of the European Union. These are important principles, they were also mentioned yesterday by the distinguished Ambassador of France, but legally speaking they cannot be described as the principles of the European Union and that is just a correction I wanted to make and I thank you very much. I will take the floor later to address actual issues on the agenda, 4, 5 and 6. Thank you Mr. Chairman.

**The CHAIRMAN** (*interpretation from French*). I thank the distinguished representative of Greece, thank you for your contribution to our discussion, I am grateful for your clarification, or maybe correction, of my comments on the statement made by the distinguished representative of Italy.

I have to say that I have read the text, I have followed the presentation by reading the text submitted at the same time and there is a reference to the three fundamental principles and the Italian representative mentioned that Italy fully subscribes to the main principles that should guide the outer space activities. He said these are the principles that should guide outer space activities obviously they are not just for Italy and, if I am not mistaken, yesterday the distinguished

Ambassador of France also cited these three principles and he also did that last year. These are truly fundamental principles and they are shared by a number of European countries, by all European countries in fact.

As regards this code of conduct, no I did not say that that was already adopted, I said that this code is being negotiated, is being developed within the framework of the European Union but it has already been approved by the Council of the European Union in the 8-9 December 2008 session of the Council. Obviously this is a work in progress still and we will certainly be informed of how it develops and what the results of these negotiations will be as they continue.

Is there another delegation wishing to speak on item 3 of our agenda. I recognize the distinguished representative of Italy.

**Mr. S. MARCHISIO** (Italy). Thank you Mr. Chairman. We would like to underline that probably it would be better, and we would be grateful, if other delegates avoid comments on the text and stay to the spoken text because otherwise there could be confusion about the meaning and interpretation of \_\_\_\_ (?) statement. Thank you very much but you interpreted very well which was the intention of our declaration. Thank you.

**The CHAIRMAN**. Thank you very much distinguished representative of Italy. Perhaps I should explain why I am trying to pinpoint the main aspects and the main points of the statements. I want, in this way, to contribute to the discussion here and to assist the delegations in concentrating on the main points of the statements. Of course I do not intend to change, in any way, the sense of the statements which are valid as they are presented by the individual speakers for each country. So this I wanted only to add.

Frankly speaking, I was inspired in doing it by the former President of COPUOS, Mr. Gérard Brachet, which introduced this practice and I found it very useful as a simple representative of my country and therefore I followed this example and have been doing it but if there should be some doubts about it, I will not be continuing. Thank you.

Yes, the distinguished representative of Brazil has the floor.

**Mr. J. MONSERRAT FILHO** (Brazil) (*interpretation from Spanish*). Mr. Chairman, thank you. We cannot overlook something that was mentioned here with regard to the code of conduct that



it has been submitted by European countries. What I would like to inform distinguished delegations here that we are also giving consideration to this document. Right now, in Brazil, we are in the process of evaluating this code of conduct and will shortly pronounce on it. Thank you very much, Mr. Chairman.

**The CHAIRMAN.** Thank you very much distinguished representative of Brazil for your input to the discussion that was raised by the intervention of our Greek colleague.

Is there any other delegation wishing to speak? I see none.

Before closing this discussion on item 3, I would like to thank all delegations and I am doing it also on behalf of the Director of OOSA, with her kind permission, for the friendly and kind words addressed to the Chair, to the Office of Outer Space and to the secretary which is doing his job here very efficiently and to all staff members of the Office, once again thank you very much. I am doing it now at the end of the discussion instead of expressing such thanks at the end of each statement. So thank you.

Distinguished delegates, we have therefore concluded the discussion on item 3 and I would now suggest that we continue our consideration of item 4 on our agenda, status and application of the five United Nations treaties on outer space.

I have only one speaker on our list and, of course, all delegations are kindly requested to inscribe the name of their country in the list of speakers but, so far, we have one statement on our agenda and it is the distinguished representative of the United States of America, to whom I give the floor.

**Mr. S. McDONALD** (United States of America). Thank you Mr. Chairman for this opportunity to provide the views of the United States on this agenda item.

The four core treaties governing the use of outer space, the Outer Space Treaty, the Agreement on the Rescue and Return of Astronauts, the Liability Convention and the Registration Convention have served States Parties well over many decades. The United States is honoured to serve as one of the depositories for three of these treaties, the Outer Space Treaty, the Rescue and Return Agreement and the Liability Convention.

I have consulted with the State Department's Treaty Office regarding action taken in Washington

with respect to these treaties and can report no such actions since the Legal Subcommittee's last meeting in April 2008. We would welcome any further information from other depositories on any relevant treaty actions since this Subcommittee's last meeting.

We would also welcome further adherence to these treaties and hope that those States and international organizations, including some members of COPUOS and some organizations that participate as observers to this Subcommittee, that have not yet become Party to these treaties will carefully consider their status with respect to them in the coming year. Thank you for this opportunity to comment on this agenda item.

**The CHAIRMAN.** Thank you very much distinguished representative of the United States of America for your contribution which informed us about the actions taken in Washington with respect to the United Nations space treaties and your announcement that you could not report any such actions since the Legal Subcommittee's last meeting in April 2008. Perhaps it would be good if our distinguished secretary could inform us whether any action was taken by the other depositories of the three United Nations ...

Mr. Hedman, secretary of our Committee, has just informed me that the Secretariat would provide such information later.

Any other speaker on agenda item 4, status and application of the five United Nations treaties on outer space?

Of course, we expect that the second meeting of the working group on this particular item will be held, probably later today or at another meeting of the Subcommittee but, so far, we discuss this item at the level of the Subcommittee.

Is there any other delegation wishing to speak on this particular item, item 4, status and application of the five United Nations treaties on outer space?

I see none.

We will therefore continue and hopefully conclude our consideration of our agenda item 4, status and application of the five United Nations treaties on outer space this afternoon, pending deliberations of the working group on this item.

Distinguished delegates, I would now like to continue our consideration of agenda item 5, information on the activities of international intergovernmental and non-governmental organizations relating to space law.

I recognize the distinguished representative of Greece.

**Mr. V. CASSAPOGLOU** (Greece) (*interpretation from French*). Thank you Mr. Chairman. Mr. Chairman I wanted to simply ask, through you, that the Secretariat should ask the (*continued in English*) European Centre for Space Law to update the text you distributed this morning, this is L.275 of 27 February 2009, to be in line with the announcement given yesterday afternoon by the colleague from ESA. I am referring especially to paragraph 10 to paragraph 14, which are on pages 4 and 5 of the English text please and also, on page 8 of the same document, under (c), paragraphs 28, 29 and 30, to be updated. Thank you very much.

**The CHAIRMAN.** Thank you very much distinguished representative of Greece. I do not know whether I should speak in French or English because you started in French and concluded, as a polyglot, the second part in English.

My understanding was that this request was addressed to the European Space Agency/European Centre for Space Law.

Any other request or contribution or note on agenda item 4?

I do not see.

So we will therefore continue our agenda item 5, information on the activities of international intergovernmental and non-governmental organizations relating to space law.

I would like to ask if there is any delegation wishing to speak on this particular item?

If not, so we have here a representative of the observer organization, namely, the representative of Intersputnik, Elina Zaytseva.

Sorry I overlooked this, so the first speaker will be, I apologize to the observer for Intersputnik.

The first speaker will be the observer for the International Law Association and it will be Professor

Maureen Williams, who is chairperson of the ILA Space Law Committee. You have the floor Madam.

**Ms. M. WILLIAMS** (International Law Association). Mr. Chairman, Ms. Othman, distinguished delegates. A number of the distinguished delegates to this Legal Subcommittee and observers are nowadays quite familiar with the work of the International Law Association and some are members of its Space Law Committee as well.

Thus, I shall very simply recall that the ILA was created 135 years ago, in Brussels, October 1873. Its headquarters are in London and its objectives are the study, clarification and development of international law, both public and private, and a furtherance of international understanding and respect for international law. These objectives are mainly pursued through the work of ILA international committees and the focal point of activities is a series of biennial conferences which provide a forum for discussion and endorsement of the work of the committees.

The ILA Space Law Committee was created over 50 years ago now in 1958 at its New York conference and the latest conference took place in Brazil, in Rio de Janeiro, last August 2008. This conference will be the central point of my presentation.

The current World President is now Professor Eduardo Grebler from Brazil, the head of the Executive Council is the Lord Slynn of Hadley, London. The officers are, General Rapporteur, Professor Stephan Hobe from the German branch and myself as Chair.

The Committee works in close cooperation with other international organizations, both public and private, such as the UN International Law Commission, the United Nations Institute for Disarmament Research, UNIDIR, the International Institute of Space Law, the European Centre for Space Law and it has been contributing to the work of a group of experts of OOSA on the preparation of the syllabi for the four regional centres affiliated with the United Nations and this is item 10 of the present agenda of the Legal Subcommittee.

What follows is a summary, in chronological order, very briefly, of some of the Committee's activities including perceptions and conclusions of its current work.

First, the forty-seventh session of the Legal Subcommittee, last year, the ILA Committee was represented in this session by its Chair, General Rapporteur and session reporter. A written report was

submitted thereto, circulated to delegates and then followed by an ILA presentation by the Chair.

I shall also mention the Conference on Security in Space: The Next Generation, Geneva, April 2008. The ILA Committee was invited to take part in this conference and submit its views on the matter. The Chair made a presentation entitled, Safeguarding Outer Space: On the Road to Space Debris Mitigation. The papers and ensuing debates were published recently by UNIDIR in the last part of 2008.

The ILA Conference in Rio, August 2008. This conference was announced in 2008 within the ILS presentation to the Legal Subcommittee and it encompassed the work of the Space Law Committee of the ILA between its Toronto conference in 2006 and the Rio conference in 2008. On this occasion, and running parallel to the traditional working sessions of the various committees, other topical issues arising in the field were addressed in panels, concurrent sessions they were called. These panels were as far as space law is concerned, there was one on outer space, a theatre of war: possible global effects and here, a number of outstanding risks was streamlined and discussed such as, weaponization, threats arising from the presence of space debris and natural near Earth objects (NEOs).

The second panel concerned space traffic management. On this occasion, the panel welcomed the inclusion of space debris on the agenda of the Legal Subcommittee, agenda item 10, as a single item for discussion and the view was expressed that, when drafting rules on space traffic management, the areas of space security and space safety were currently overlapping.

An important step forward would be for countries to enact national space legislation on this field. However, it was expressed by another group on this panel that outer space should be defined because this would certainly ease the way of institutions called upon to deal with space traffic management from a legal viewpoint.

Now to the working session in Rio and the report which was discussed and adopted by this Conference. On this point, the Legal Subcommittee of COPUOS in its report to the General Assembly last year, the report on the forty-seventh session, noted that the ILA would be holding a conference in Rio and that the following topics would be addressed, remote sensing, national space legislation, registration issues, space debris and dispute settlement.

It also noted, document A/AC.105/947, page 12, paragraph 54, of the report of the Legal Subcommittee to the General Assembly, noted that the Space Law Committee would be meeting together with a study group set up under the responsibility of international organizations and that this study group work in close cooperation with the International Law Commission in its work concerning precisely the same topic.

In this light, a third report of the ILA Committee was submitted to the Rio Conference, the work in session included a considerable number of ideas and views from the floor which are now part of the conference report, adopted and is about to be out shortly in book format. You may have a look at it on the website but the website does not include the working session which we feel is the most interesting and stimulating part of the conference.

I shall take these five matters in turn. Remote sensing. The ILA report followed the discussions held in Toronto, 2006, and mainly dealt with remote sensing and its links with registration issues, taking into account the input provided by the ILA Committee to the working group on registration which produced a report which is now a United Nations General Assembly resolution. It also addressed some controversial principles embodied in the 1986 Principles of the UN on remote sensing and on the validity of principles.

Mr. Chairman, distinguished delegates, the ILA Space Law Committee thought that having in mind that the political will for moving onto binding instruments is not there but a number of principles, UN 1986 Principles were, to some extent, reflecting customary international law or, to state this in reverse, that State practice revealed that the principles were, along general lines, being observed in remote sensing activities.

Having in mind that one of the most controversial principles, namely, principle 12, dealing with the right of access to information collected by satellites over the territory of some States has become less dramatic because, on the one hand, the growth of commercial space activities has kind of shifted the problem to the commercial side and, secondly, because there is a growing number of developing countries now involved in space activities so, we thought we should focus on a more practical and specific problem which is the use of satellite data and international litigation and its value as evidence in court and tribunals.

The Committee became specifically involved in the analysis of important applications of space data and

considered that solutions were needed in the current situation because it was counter to the use of satellite imagery in court, particularly in boundary disputes where the precision of satellite technologies was essential.

In this initial stage, raw data cannot be modified when it is collected by a satellite. The issue is really the manipulation of digital data as the outcome of a long chain of interpretation once the raw data is collected by the satellite. This is particularly sensitive in boundary disputes involving sensitive sovereignty questions over lands and water.

A number of recent cases decided by the ICJ clearly show this problem. We focused on Qatar-Bahrain or Nigeria-Cameroon, or Botswana-Namibia, among others, and some international arbitrations where the Parties produced satellite imagery as evidence and there was a certain confusion on these matters. Therefore, and on this point, may I refer you to paragraph 17, page 11, of the report circulated this morning, A/AC.105/C.2/L.275, because there is some typing error or something that slipped in and it is completely changing the sense of what is said in that paragraph. Line 9 of paragraph 17 of the document quoted, we should delete "the latter" and replace it with "they also", this is a very important corrigendum which would be otherwise twisting the whole question.

Therefore, one of the outstanding questions is the handling of digital images which normally amount to a collection of data without the possibility of detecting changes at a later stage. The difference between satellite data and other conventional means of evidence is not merely the higher precision of the former which leaves no space for human error but leaves considerable space for the interpretation of the expert which necessarily is bound to take part in these proceedings. The main pitfall is that obscuring, moving or introducing elements to digital images may be largely invisible to the human eye. This means an inevitable dependence on the experts called upon to interpret the data which, in turn, makes judges, arbitrators and international lawyers particularly uneasy.

The different stages leading to elaboration of digital graphs, very briefly, is first, Earth observation satellites collect the raw data which is transmitted by them to the ground. In this primary state, data has no real value and must be processed. The next step, known as pre-processing, is to make atmospheric, radiometric and geometric corrections, among others. The next step is that the raw data becomes available in digital form and certain aspects of a picture may be

enhanced, at the user's request, by computer programmes. After that the user may then ask for the classification of the information gathered bringing together, for instance, similarities and differences. Then ancillary information, such as, maps, GPS data, etc. may be added to prove the results of the satellite image.

Concerning the pre-processing stage, point 2. One of our Committee members has observed that the main reason for pre-processing the raw data is because of the continual non-ideal position of the orbit and spacecraft attitude, yaw, pitch and roll. Corrections are crucial to ensure that the picture is not distorted. The suggestion was made that it should be mandatory for remote sensing satellite operators to keep such data on record, so that it is possible to reassure that the raw data has not been manipulated except for what is demanded by the natural life changes of the satellite orbit and attitude. Consequently, there is this inevitable dependence on the experts called upon to interpret the data. A possible step forward could be running the data through Photoshop, a method applied by the Journal of Cell Biology in the US which has revealed cases of manipulation and misrepresentation of data.

In 2006, the Hwang case was in the limelight involving fraudulent papers published in science concerning stem cell research which unchained a string of most controversial opinions surrounding fraud in science. It revealed, at the same time, the ineffectiveness of peer review.

In the legal world the doctrine remains divided as to the value of satellite data in court proceedings. Lawyers and judges have conflicting views as well and in this context the ILA decided to continue research on the matter.

Summarized views of the Committee. \_\_\_\_ (?) point is that there are still no developed international rules or standards in place as to the use of Earth observation satellite data in the court room. Common standards for digital data products are slowly being developed at national levels but there is still widespread uncertainty in the legal world. Perhaps the conventional means of obtaining evidence, such as, ground inspections or aerial photography are more cost effective or preferable depending on the objectives. University College, London, with whom we work in close cooperation, is currently testing the use of satellites in enforcing the number of laws with mixed results.

In recent years, there has been a notable increase in the use of satellite technology in court and

it is now necessary to have more recording and publicity of its applications, this insofar as the UK research group is concerned.

The main conclusion is that the training of the legal sector is crucial for the development of these technologies, item 9 of the agenda of the Legal Subcommittee. There is still, however, a lack of awareness, knowledge and understanding, in the legal field, as to what technology can offer and what are its limitations. It is thus essential to have more interdisciplinary cooperation so that future technologies have a greater ability to meet the legal users' needs.

A word on the state of the art conclusions and suggestions. The importance of this question is reaching developing countries as well. Last May, 2008, a conference on this specific question was organized at the Ministry of Foreign Affairs in Buenos Aires, under the auspices of the Argentine Space Agency, the European Space Agency, the National Science Council of Argentina, the National Institute of Space Law and international law associations. The meeting was chaired by the Executive Director of Argentine National Space Agency and a stimulating debate \_\_\_\_ (?) interdisciplinary nature followed the presentation. The described activities and different views are clear indication that further studies are needed to enable the drawing up of sound realistic proposals.

I shall not take up time to mention the preliminary conclusions reached at this meeting because you may find this on page 13 of the document and I shall now move on to the next question.

**The CHAIRMAN.** May I interrupt you, Professor Williams. I apologize for interrupting you Professor Williams but, because of time constraints, we will have to kindly ask you to postpone the presentation of the second part of your very valuable statement for the afternoon because we have still, on our agenda, the presentation of the Japanese expert, Mr. Daisuke Saisho, of Japan, on the outcomes of the Japan's lunar explorer, Kaguya. We cannot extend this morning's session more than a few minutes after noon. I would like again kindly ask you to wait with the presentation of the second part of your statement for this afternoon's meeting. Thank you for your understanding.

Ladies and gentlemen, as I already advised you, we will now end this morning's meeting, the discussion on agenda item 5, the reports of international organizations and I also apologize to the

observer for Intersputnik because this report should also be postponed for our afternoon session. I will now kindly request Mr. Daisuke Saisho of Japan for presenting findings from Japan's lunar explorer, Kaguya.

**Mr. D. SAISHO** (Japan). Mr. Chairman, I would like to thank you for this opportunity to make a presentation of Japan's lunar explorer, Kaguya. We plan to present a \_\_\_\_ (?) example as it relates to our legal discussions concerning the Moon.

To begin with, the name of our satellite, Kaguya, comes from a classic Japanese story, Taketori Monogatari. The story of a bamboo cutter and the princess of the Moon. Kaguya is the name of the princess of the Moon.

Kaguya's missions are as mentioned on the screen. Global survey for the lunar origin and evolution study; data application to future moon utilization; technology development for the lunar exploration; and, public outreach.

Four Kaguya research reports using observation data from Kaguya and perspectives titled, Seeing the missing half, were published as part of a Kaguya special edition in Science Magazine, dated 13 February 2009. This special edition, which is featured on the cover page, is epoch-making and succeeds the special issues of planetoid explorer, Hayabusa, in June 2006 and the solar observation satellite, Hinode, in December 2007. The research reports in Science magazine aim to provide new knowledge to stimulate the study of the origin and evolution of the Moon are shown on the screen.

The first one concerns observations of subsurface layers under the moon. Another, shows the far side gravity field of the moon. The third one is about the lunar global shape and polar topography and the last one is about the long-lived volcanism on the lunar far side. In addition, the right-hand side images are captured by the high-definition TV camera on board Kaguya.

Japan Aerospace Exploration Agency, JAXA, and the Japan Broadcasting Corporation, NHK, took moving images of the full Earthrise over the North Pole, captured by the HDTV camera on 30 September 2008.

We have successfully taken moving images just at the precise moment of Earthrise, where the Earth looks like a diamond ring, on 10 February 2009. The Earth looked like a diamond ring, looking at the Moon

from the Earth, it is the moment when the lunar eclipse happened. At that moment they took this picture from the Moon.

This is looking from the Moon towards the Earth and the Sun behind it. This is the first time that this phenomena was shot from the Moon.

The left-hand images are provided by laser altimeter on Kaguya for a science paper concerning the global shape of the Moon. The Kaguya laser altimeter is able to obtain a range of data on a global scale among satellite trajectory, including the high latitude region above 75° that has never been measured by an altimeter. The number of measurement points, as of this March, is about 6 million and it is more than 10 times larger than the number of the former observations that took place. The result of this picture indicate the lunar crust is rigid enough to support the surface that is rougher than that of the Earth which may indicate the dryer lithosphere of the Moon and the Earth. These data will enable us, for the first time in the world, to construct an accurate and precise global topography map of the Moon.

The right-hand side images are provided by Kaguya's Doppler measurers. The far side gravity field model of the Moon has been improved by Kaguya. The colour of the figure shows the strength of the gravity field in blue, green, yellow, red, in that order. The new gravity field model shows the difference in the basic structure between the near side and the far side of the Moon and, according to our scientists, the basic structure possibly reflects the thermal state of the lithosphere and gives an important clue to understand the thermal evolution of the Moon.

With all these data, as a whole, what can we say about the origin and evolution of the Moon. We are now at a stage of analysing the data we receive from each of the sensors we have on Kaguya so we will still have time to enjoy waiting for what the scientists come up with.

Finally, please enjoy this last picture. We can fly across the lunar surface by using data from Kaguya's high resolution terrain camera. One dot of this monitor is about 10 metres, so it is several kilometres high.

This is about it and it is a brief presentation of the findings we have on the Moon. Thank you for listening.

**The CHAIRMAN.** Thank you Mr. Daisuke Saisho for your very interesting presentation.

Is there any delegate who has questions for the presenter?

I see none.

I will shortly adjourn this meeting but, before doing so, I would like to remind delegates of our schedule of work for this afternoon.

We will meet promptly at 3 p.m. it means the Subcommittee will meet at 3 p.m. At that time we will continue and hopefully suspend our consideration of agenda item 4, status and application of the five United Nations treaties on outer space and will continue our consideration of agenda 5, information on the activities of international intergovernmental and non-governmental organizations relating to space law. We will also begin agenda item 6, definition and delimitation of outer space, (a) and (b), the character and utilization of the geostationary orbit. Time permitting, we will begin our consideration of agenda item 7, nuclear power sources. At the end of this afternoon's meeting, we will have two working groups. Working group on agenda item 4, status and application of the five United Nations treaties in outer space and working group on agenda item 6 (a) the definition and delimitation of outer space. Finally I would like to cordially invite all delegates to watch the video presented by Japan, entitled, Results from Japan's lunar explorer, Kaguya. The video will be shown in this conference room from 1445 until 1500.

Are there any questions or comments on this proposed schedule?

I see none.

The meeting is adjourned until 3 p.m. of this afternoon and, of course, until 1445 for the presentation of the Kaguya movie.

*The meeting closed at 1.02 p.m.*