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Committee on the Peaceful Uses of Outer Space

Unedited transcript

601st Meeting
Friday, 5 June 2009, 10 a.m.
Vienna

Chairman: Mr. Suvit Vibulsresth(?) (Thailand)

The meeting was called to order at 10.21 a.m.

The CHAIRMAN *(interpretation from Spanish)*: Good morning distinguished delegates, I now declare open the 601st meeting of the Committee on the Peaceful Uses of Outer Space and I am doing it on the World's Environment Day. Obviously our Committee consultant solidarity with the cause of protecting our environment. It is anybody's cause, not only bilateral, multilateral but global, affecting the population of the entire planet which we, in this Committee represent.

This morning we will continue and hopefully conclude our consideration of agenda 4, General Exchange of Views. We will also begin our consideration of item 5, Ways and Means of Maintaining Outer Space for Peaceful Purpose, item 6, Implementation of the Recommendations of UNISPACE III, item 7, Report of the Scientific and Technical Subcommittee on its Forty-Sixth Session, and, time permitting, and I hope time will permit, we will start consideration of item 8, Report of the Legal Subcommittee on its forty-eighth session.

Following the Plenary, there will be four technical presentations. One by Ms. Takemi Chiku of Japan entitled "Building Peace in Young Minds Through Space Education: Contributions of JAXA, the Space Education Centre to Human Development". Next, by Brazil and Mexico, specifically represented by Mr. Sergio Camacho on the "Status Report on the Operation of the Regional Centre for Space Science and Technology Education for Latin America and the Caribbean". Another presentation will be presented by Mr. Joseph Akinyede of Nigeria on the "Status Report on the Operation of the African Regional Centre for Space Science and Technology Education" in the English language. And finally, we will hear a presentation by Madam You Zhou of China on "Small Satellite Constellations for Environment and Disaster Monitoring.

At the end of the morning at about 1.30 p.m., there will be a video presentation by the United States of America entitled "For All Mankind". It is about the Apollo missions to the Moon. The video will be introduced by the Permanent Representative of the United States of America to the United Nations here in Vienna, His Excellency Ambassador Gregory Schulte and by Mr. Rusty Schweikart, an astronaut on Apollo 8, who is with us here in this session.

General exchange of views (item 4)

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

The first speaker on my list under this agenda item is the distinguished representative of Cuba, Mr. Daniel Codorniu Pujals. You have the floor Sir.

Mr. D.CODORNIU PUJALS (Cuba) *(interpretation from Spanish)*: Thank you Mr. Chairman. Mr. Chairman, my delegation welcomes the fact that you are once again at the helm of this Committee. We are convinced that under your leadership our work will be successful. We wish you every success in your work and also assure you of our willingness to contribute to the successful conclusion of this meeting.

We are also thankful, Mr. Chairman, to the efforts deployed with a view to giving an impetus to

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international cooperation in the area of space exploration through your paper, which you distributed among us the other day. We are studying it with great interest.

I would also like to take this opportunity to express our gratitude to the Office for Outer Space Affairs and personally to its Director, Dr. Othman, for the excellent management of work in the period since the last session and for the efforts of this Organization to promote the work of this forum.

We also would like to express our full support to the statement presented by Ambassador Horacio Bazoberry of Bolivia on behalf of GRULAC.

Mr. Chairman, 10 years ago, UNISPACE III took place here in Vienna. The debates on the recommendations of that event provided guidelines for international efforts in terms of promoting cooperation in space technology.

A review of the years that have elapsed shows that there is a growing impact on space technologies on the development of humanity and the importance of the role of COPUOS and the Office for Outer Space Affairs continues to grow. An excellent example of what has been accomplished in this period is the Programme UNSPIDER, which is of great value for the coordination and the use of space technologies in disaster situations. My delegation highly values the work carried out within the framework of that Programme both on the global level and in particular Latin America and the Caribbean. And we are grateful to the Office for Outer Space Affairs and to those countries that have set up Regional Offices for UNSPIDER. Furthermore, we believe it is important to continue this work through the establishment of other Regional Offices to support the Programme in the future.

In addition to SPIDER, many other accomplishments in the area of international cooperation come to mind, such as the priority given to space satellite navigation, use of satellites for the optimal management of water and land resources, for tele-medicine and tele-education, to cite just a few examples.

Unfortunately, however, in this arena, which is so full of opportunities, there is also a danger emerging, that of an arms race in outer space. This is a latent threat which we are reminded of by the deployable initiatives such as the anti-missile shield. In this regard, my delegation believes that it is necessary to review international law to come to a binding international instrument that would ban all types of weapons deployment in outer space. COPUOS should play an important part in coordination with the Disarmament Conference and other bodies of the United Nations.

In this context, we would like to reaffirm our support for the initiative of Russia and China put forward in the Disarmament Commission last year with regard to a treaty to prevent the development of weapons in outer space, the threat or use of threat of use of force from outer space.

We reiterate the need to review the legal framework for outer space activities in such areas as the definition of outer space, regulations with regard to the management of space debris, the use of nuclear power sources in outer space, and to clearly establish the responsibilities and liabilities of governments and other actors in the space arena.

Mr. Chairman, Cuba continues using a systematic and progressive way to the benefits of space technologies for its economic and social development. Of particular significance in this regard, it is the use of satellites for meteorological monitoring and environmental control which have been used with success, particularly to follow the conduct of tropical cyclones in the last cyclone season, to come up diagnosis, prevention and decision-making in the critical phases of these disastrous events. Also technology has been used for managing forest fires and land resources.

We would like to support these applications, and for that purpose, created a Satellite Image Bank for our national territory.

An important aspect of the Development Programme for Space Technologies in our country is a way to promote the interest of the younger generation of these technologies. For that purpose, we have pursued a number of programmes among young people and children. In particular I would like to mention the recent establish of the Aerospace Studies Chair in the Institute of Technology and Applied Science.

Mr. Chairman, many of these activities have benefited from international cooperation, in particular with other Latin American countries but also from other regions. Cuba is firmly convinced that cooperation among nations is the only way to achieve results that would be truly effective for the specific use of outer space and space-related technologies and on this COPUOS plays an important role. Thank you.

The CHAIRMAN *(interpretation from Spanish)*: I would like to thank the distinguished delegate of Cuba for his statement and for the support of the President's initiative. We fully share and understand the importance of the growing use of space technologies in Cuba and I particularly emphasize the fact that we welcome the setting up of this Space Image Bank. It is an excellent step towards the more efficient use of these space-based instruments.

Also we welcome the setting up of the Space Technologies Chair at the Institute of Technology and Applied Sciences.

The next speaker on my list is the distinguished Ambassador of Thailand, Mr. Adisak Panupong.

Mr. A. PANUPONG (Thailand): Mr. Chairman, at the outset, I would like to extend sincere congratulations to you for the achievements made by the Committee in the past year. I am confident that under your able leadership, this session will be another success.

On behalf of the Thai delegation, I also wish to express our appreciation to the Director of the Office for Outer Space Affairs, Dr. Othman, and the Secretariat staff for the excellent preparation for this meeting.

Mr. Chairman, the year 2008 is a very special year for Thailand towards it space development. On 1 October 2008, Thailand's first Earth observation satellite, THEOS, was successfully launched from the Yasny Launch Base, with its high-resolution panchromatic and multi-spectral node. THEOS could serve various applications, not only for Thailand but also worldwide.

I am also pleased to inform the Committee that Thailand's Geoinformatics and Space Technology Development Agency, GISDA, announce commercial operations of THEOS data services starting from 1 June 2009.

In addition, I would like to inform the meeting of the joint cooperation in the Small Multi-Mission Satellite Project between China and Thailand. The SMMS was successfully launched in September 2008 from Taiyuan Launch Centre. The function and overall performance of this satellite makes major contributions to disaster mitigation and environmental protection. The Project certainly benefits all the Asian and Pacific countries participating in the Programme. Thailand has the confidence that the SMMS and THEOS will bring benefits for sustainable regional socio-economic development and facilitate the peaceful uses of outer space.

Mr. Chairman, realizes the importance of human resources for the development of space technologies and its applications. In the field of Earth observation, more than 30(?) short courses on remote sensing and GIS have been conducted annually including regular courses and specific courses upon request.

As for space study in academic institutions, the curriculum on space technology and its applications are available in the universities, both in Bangkok and various regions including Bachelor, Master and doctorate-phase levels.

The text on fundamental space technology has also been published for distribution to primary schools nationwide.

In addition, Space Youth Camps are also conducted to raise the awareness of young children in this area.

Regarding international cooperation of human capacity-building, Thailand attaches importance in assisting our neighbouring countries, such as Laos and Myanmar, in the development of their human resources. Recently, Thailand hosted the CEOS Regional Workshop on Capacity-Building in Bangkok. A series of workshops and seminars have also been organized under the ASEAN Subcommittee on Space Technology and Applications.

Mr. Chairman, in the area of international cooperation, Thailand cooperated with both international organizations and bilaterally with various countries. Thailand has actively participated in the activities in the framework of CEOS, GEO, AARS, APRSAF, _____(?) *(not clear)*, SCOSA(?), and the Asia-Pacific Space Cooperation Organization.

Since November 2008, Thailand has enjoyed the privilege of becoming the CEOS Chair for a one-year term and will hand over to Brazil in the upcoming CEOS Plenary Meeting to be held in Phuket, Thailand, this November.

In this regard, I am pleased to report to the meeting that CEOS is working towards developing _____(?) outcomes in support of the task of the Group on Earth Observations. Moreover, CEOS responds to priority areas at risk by the FCCC(?),

especially on the implementation of the global climate of serving systems of space-based observation.

As for APRSAF, Thailand has participated in several activities, including Sentinel-Asia, the STAR Programme and SAVE(?). In January 2010, Thailand, by the Ministry of Science and Technology and GISDA, in cooperation with the Japanese Government and JAXA, we will host the Sixteenth Session of the Asia-Pacific Regional Space Agency Forum in Phuket. I, therefore, would like to take this opportunity to invite interested persons to participate in this important meeting.

Mr. Chairman, we all are aware that the socio-economic, natural disasters, health and disintegration(?) of natural resources are critical problems facing our planet Earth and it has been proven that space technology is one of the vital tools that can help solve those problems.

On the adverse side, space technology can be used as a powerful weapon. Therefore, Thailand strongly encourages all members and non-member States under the aegis of the COPUOS to implement space technology only for peaceful purposes. Thank you Mr. Chairman.

The CHAIRMAN *(interpretation from Spanish)*: Thank you very much Ambassador for that statement on your part on behalf of the delegation of Thailand. Thank you for all your efforts with regard to regional cooperation and all of your participation in COPUOS. Since the Vice-Chairman is Thai, he has certainly worked hand-in-hand with the Chair. Thank you very much.

And now I would like to give the floor to Algeria, the next speaker on my list. You have the floor.

Mr. A. OUSSEDIK (Algeria) *(interpretation from French)*: Chairman, allow me to reiterate the satisfaction of the Algerian delegation to see you in the Chair of this fifty-second session of COPUOS. We are sure, indeed, that your experience and commitment in favour of the peaceful uses of outer space will necessarily contribute to the work to the success of our work.

I would also like to take this opportunity to thank the Director of the Office for Outer Space Affairs, as well as all of the members of the Bureau for the excellent way in which the work of this session has been prepared and organized.

During 2008, Algerian space activity has been marked by very practical achievements in implementing the National Space Programme which has been forecast to the year 2020, in particular, in the field of space applications, the evaluation of natural resources, management of basic infrastructure, training and research.

In the field of space applications, particular importance was attached to projects having to do with the prevention and the management of natural disasters following the floods that had an impact on the region of Ghardaia which took place between the 29 September and 1 October 2008.

In cooperation with the Algerian Civil Defence Directorate, the Algerian Space Agency, ASAL, indeed started off and triggered the operations of the International Charter on Outer Space and Major Disasters. The work that was done allowed, on the one hand, for the development of a global analysis of the situation in the areas subjected to this natural disaster with medium resolution images interpreted before and after the floods and, on the other hand, the establishment of a thematic crytography of the various levels of risk and danger which were validated on the field which was used by the local authorities for family re-accommodation, etc.

In the context of prevention and locust control, our Space Agency pursued the exploitation of ALSAT-1 data for the analysis of ecological conditions of the reproduction process of the desert locust.

As concerns the evaluation of natural resources and management of basic infrastructure, the priority action was focused on the improvement of our knowledge in the following fields: energy and mines, the development of the geological crytography effort in Algeria on the scale of 1:200,000; secondly, urban development and the implementation of a geographic information system for the follow-up and monitoring of urban instruments and habitat programmes; and thirdly, the Step Land Registry with the establishment and development of space maps.

In the field of training and research, 2008 was marked by the finalization of the first year of the five(?) specialities comprised in the first graduate year of the Doctoral School of Space Technologies and Applications and the selection of, in a competition, 14 new students who are going to be starting their studies in 2008-2009 for the following course options: spatial optics, precision mechanics, telecommunications, space informatics, space instrumentation, image processing and geographic information systems.

We are also going to be strengthening our capacities in the field of space law and the education space law. Here we are collaborating with the Ministry of Higher Education and Scientific Research in order to introduce space law as a Post-Graduate level in our universities.

As regards international cooperation, we are continuing to work to strengthen our cooperation in various fields of space activities with various countries and international bodies. Various Memoranda of Understanding and Framework Agreements have been signed with Argentina, China, France, the Russian Federation, Ukraine, India and South Africa.

At the regional level, it is important to recall the work that is being continued on two federating projects and the first has to do with the Arab Observation Array on Earth, ASEO, and this was undertaken upon the initiative of the League of Arab States. And a second is focusing on the African and environmental resource management effort. This was initiated by Algeria, South Africa and Nigeria and here a Declaration of Intention was signed on 19 June 2008 on the sidelines of the fifty-first session of COPUOS. Experts of three countries met in Algiers on 17 and 18 March 2009 to finalize the Memorandum of Understanding describing commitments and defining technical specifications of this constellation and the organizational framework in which the project will be developing.

Within our continent, here again, two African Leadership Conferences on the Application of Science and Space Technology, as they apply to sustainable development, were held in 2005 in Abuja, and in 2007 in Pretoria, and they will be followed by a third conference to be organized in Algiers by the Algerian Space Agency from 13 November to 2 December 2009, during which we hope, *inter alia*, to achieve considerable momentum for the African Constellation Project, ARMC.

As concerns the SPIDER Programme, we would like to note with satisfaction and thank the Office for Outer Space Affairs for the favourable follow-up to the offer of Algeria to hold the Regional Support Office in charge of coordination for work in North Africa. The Algerian Civil Defence Directorate, with the support of our Space Agency and other specialized national institutions, will play the role of a National Liaison Centre and will be working in close cooperation with this entity.

Our Work Plan defining the activities of the Regional Office could be developed and will be developed with the SPIDER Programme Coordinator and the Office for Outer Space Affairs. Within the context of this Programme, an expert from our Space Agency participating in a technical assistance mission in Burkina Faso from 17 to 21 November 2008. This was targeting the consultation evaluation of the state of affairs availing as regards the use of space technologies and information for the management and control of natural disasters and emergency situations.

The Algerian delegation would like to mark its attachment to preserving our common heritage which is space and would like to take this opportunity to stress the interest that we attach to the consideration of the new item proposed on the agenda on the upcoming session of the Scientific and Technical Subcommittee, that is the “Long-Term Sustainability of Space Activities” in order to better develop best practices for space operations. And the proposal to entrust this issue to a working group can only be supported by us indeed because this would allow us to best approach this matter of general interest and to prepare measures accordingly. Thank you very much.

The CHAIRMAN *(interpretation from Spanish)*: Thank you very much for this proposal for international cooperation. It was very interesting to note indeed what you have accomplished jointly with other countries, especially in describing your federative projects. Both of these projects are of vital importance to the region. Last year, this project was signed by the three countries and I see that it already has been positively followed up. So thank you very much for that.

Now the next speaker on my list is the representative of the Bolivarian Republic of Venezuela. You have the floor Sir.

Mr. R. BECERRA (Bolivarian Republic of Venezuela) *(interpretation from Spanish)*: I would like to greet you to start off with. It is a real pleasure to see you in the Chair of our session. I would also like to greet all colleagues present and to thank them for their excellent work.

In 1989, the Bolivarian Republic of Venezuela, which is fully cognizant and aware of the importance of science and technology applications of outer space technology for the development of our economy. Indeed, we realize that it is important to take due note of what can be done in practical ways. Our work is based on Articles 11 and 10 of our Constitution in the Presidential Commission of Venezuela and has

considered this fairly as the Bolivarian delegation for space activities in 2008. And on 1 January 2008, the Bolivarian Agency for Space Activities, the ABAE, was established. This was established on the basis of a Legal Decree in 2007. This is reflected in the Official Journal of 25 October 2007. This is an autonomous institute and its mission is to develop public policy in the field of space affairs. This is used as a tool to strengthen social justice and economic development. This marks indeed a new stage for the development of Venezuela in this regard.

The national priorities are as follows. We intend to set up a satellite platform which would enable the interconnection of telecommunications networks that works within our State. We would also like to use the space technology applications in all of the fields of endeavour, the public sector, and to thereby contribute to the establishment of projects which are to be underpinning all the developments and efforts in this sector, energy, agriculture, health education, the environment planning, land use and development and risk management.

And thirdly, we need indeed to firmly and soundly establish national capacities as regards the training of our staff and to ensure the development of technological potential. It is necessary indeed to engage in international cooperation to this end. This indeed in implementation of the legal principles which are underpinning the use of space applications to peaceful purposes.

We are indeed institutionalizing this public policy and in doing so, I believe that we are a unique State in this regard.

Among the tangible and practical expressions of the dissemination of these new technologies for peaceful purposes, I think that we have to especially refer to our VENESAT-1 Programme. We have the land-based segment and the space-based segment and the technological transfer sector as well. It is in this fashion that this will be contributing to the improvement of our population at large especially of the more isolated segments thereof who are not properly technologically linked. We can usefully refer to rural telephonic development, Internet linkages established, the proper dissemination of TV programmes for education, the dissemination of radio and TV throughout our national territory. This allows us to reinforce the cultural identity of our people and to ensure the production of indigenous technology throughout our national territory.

I believe that our involvement in the satellite broadcasting is indeed going to be a value in this regard as well. We have worked on our Simón Bolivar satellite with the People's Republic of China which certainly helped us in the implementation of all of the projects of this satellite's operations.

The transfer of technology is one of the main aspects of the VENESAT-1 Programme. This also allows for proper training of qualified staff. In one of the initial stages of the Programme, for example, a group of professionals were trained at Masters level and Doctoral level in space technologies and this is something of considerable importance to us indeed. In March 2007, a group of national staff trained for Simón Bolivar land-based facilities were also added.

On this basis, indeed we have produced 90 specialized caters(?) in the very specific areas of applied satellite technologies and this, in cooperation with the Chinese Aeronautics and Astronautics Institute of their University.

Now we will go on to other themes. We are still working on projects on Earth remote sensing, applications of space technologies for social programmes and diagnostics. We have especially focused on operations in the CVPR, that is the Venezuelan Centre of Remote Sensing. We are especially stressing the Programme acquisition, the processing and work on satellite remote sensing images which are then distributed on a free basis amongst the various Venezuelan entities and agencies.

We have satellite images from the SPOT satellites and 6,003 images have been made available by State authorities to the various academies involved which are archiving and cataloguing these satellite images.

The ABAE is concentrating its activities on the strengthening of capacities in satellite imaging and processing and various work was coordinated throughout 2008 on the following areas: agriculture, forest resources, environment, geo-sciences, hydrological resources, photogrammetry, digital photogrammetry in particular, geo-information, geological and hydrometeorological efforts.

Nine Ministry staff have been able to be specially trained in our cooperation with the Remote Sensing Institute from the IRS, India, which is located in the city of Dehradun. This was a training course which took place over a period of 10 months. We are, thus, able to disseminate this knowledge at all levels of

our educational effort, especially targeting younger people.

Now we have sought to motivate the players in our Public Administration to take part in these activities on the basis of the Simón Bolivar satellite operations. This is a well-adapted platform for educational strategy deployment which will allow us to use this as a point of leverage to better educate our population, especially the rural population segment thereof. Remote tele-education is very important for our country.

I would also like to recall that the objective of Venezuela is to strengthen technology and the information processes and all of this will only be possible if we engage in a sound international cooperation policy and programme and this regionally as well. We are engaging in this. The ABAE has participated in ever so many international meetings in order to properly implement the peaceful uses of outer space. This has been managed by the Ministry of Foreign Affairs and this has enabled us to strengthen our strategies and bilateral and multilateral cooperation. Over the past year we have cooperated with Russia and France, for example. We have signed bilateral Cooperation Agreements with these countries. We have also signed a Special Agreement with Brazil. We hope to sign bilateral instruments with China and India as well.

I certainly hope that the work of our Committee will be crowned with success. Thank you very much.

The CHAIRMAN *(interpretation from Spanish)*: Thank you very much the representative of the Bolivarian Republic of Venezuela for the extremely kind words that you addressed to the Chair and to the Office for Outer Space Affairs and for the very detailed description of the activities engaged in in this field in your country. In particular, I would like to congratulate you for the fact that a working group was set up in order to examine international treaties and to consider Venezuela's accession to these treaties. Thank you very much.

The next speaker on my list is the representative of South Africa, Madam Nomfuneko Majaja. You have the floor Madam.

Ms. N. MAJAJA (South Africa): Thank you Mr. Chair. Chairperson, it is a great pleasure for the South African delegation to participate in this fifty-second of the United Nations COPUOS and we believe that under your able leadership, this session will prove to be another valuable occasion for highly productive deliberations.

We would like to take this opportunity to express our thanks to the Director of the Office for Outer Space Affairs, Dr. Othman, for her leadership and the staff of the Office for Outer Space Affairs for their excellent preparations for this meeting.

Chairperson, South Africa has strong commitment to the development of promotion of space affairs in general and, more specifically, to creating a conducive and regulatory environment for space science and technology for the peaceful uses of outer space to enhance our economic development.

South Africa has made substantial progress on space-related activities since the last session. I would now like to share with you some of these achievements.

Very important is the fact that our country now has a guiding instrument for all the stakeholders in the form of a National Space Policy under the Department of Trade and Industry which was launched by the Minister of Trade and Industry on 6 March 2009. The Space Policy guides _____(?) South African stakeholders as they carry out space-related activities, including the South African Council for Space Affairs and the South African National Space Agency. The country is currently working on a broad implementation plan for the Space Policy.

Chairperson, following approval by our Cabinet in April 2009, South Africa is working through the statutory processes of finalizing its ratification of the Registration and the Liability Conventions. Ratification of these Treaties will ensure that South Africa operates within an internationally-accepted established legal framework and confirms South Africa's commitment to utilize outer space for peaceful purposes as a guiding principle of its newly-approved National Space Policy and its National Space Strategy.

We have a few copies of our Policy for interested delegations who may contact us.

The National Space Strategy developed under the lead of the Department of Science and Technology is an instrument approved by our National Cabinet and for which an Implementation Plan is currently being finalized. The Space Strategy gives expression to the guiding principles in our Space Policy to ensure a viable space programme in South Africa.

Additionally, the process of establishing a National Space Agency is making steady progress. The National Space Agency Bill was signed in January 2009. The Agency aims to harmonize the space(?) activities to national space science institutions and to oversee local space activities. An Interim Office has been established to facilitate operational functions of the Agency.

We are currently in the process of appointing the Board of the Space Agency. This will be closely followed by the appointment of the Executive Management Structure for the Agency.

In the domain of space awareness, South Africa participated in the 2008 World Space Week by organizing several events around the country that focused on the youth in schools and in universities.

In order to protect South Africa's investments in astronomic facilities and to preserve the almost pristine sky(?) conditions for astronomical research, regulations linked to the Astronomy Geographic Advantage Act has been consulted.

Good progress was also made on the MeerKAT Radio Telescope Project over the past year. This is a seven-dish array under the construction near Carnarvon in the northern Cape Province.

Large-scale projects such as the MeerKAT-LSKA provide examples of space-related activities that promote industrial and economic development in the country.

Chairperson, my delegation believes that interregional cooperation has powerful means to share the benefits of space technology and to preserve outer space for peaceful uses for the benefit of all humankind.

In this regard, South Africa is committed to supporting continental initiatives that promote cooperation in outer space. In particular, we are looking forward to the Third African Regional Conference on Space Science and Technology to be hosted by the Government of Algeria in December this year. This Conference will set in motion a series of events around the continent that will build up to the Sixty-Second International Astronautical Congress to be hosted in Cape Town in 2011. This will be the first IAC to be held on the African continent and we are committed to working with all other interested African countries, with the Office for Outer Space Affairs, the IAF and other entities, to ensure that this Congress benefits the continent as a whole.

Chairperson, we noted with interest your remarks during the opening session concerning a possible United Nations Space Policy. Given the rapid evolution of the space arena and the growing number in diversity of actors in space, your suggestion is timely and we look forward to a fruitful exchange of views on the discussion document you have distributed. Our delegation is prepared to work with you and other interested delegations on this issue.

Chairperson, with regard to agenda item 9 on spin-off benefits of space technology, South Africa acknowledges the importance of these technologies for socio-economic benefits. Developing nations have crucial challenges in the areas of health and medicine, public safety and security, industrial productivity and transport, and spin-off benefits from space technology can provide solutions to some of the challenges in these areas.

We, thus, believe that space technology will continue to play a crucial role, not only in driving economic progress, but also in helping developing countries address some of their industrialization challenges.

Chairperson, the agenda item on space water is of great interest to South Africa, an arid country that faces considerable challenges to meet the requirements of providing clean and safe drinking water for our growing population. For us, this is an issue of sustainable development. The predictions of global climate change are what it will exacerbate these challenges. Much of South Africa is already arid or semi-arid. Global climate change is expected to increase. Temperatures and floods and add to pressure(?) to already limited water supplies, thus exacerbating development challenges in the areas of sanitation, health, provision of clean water and food security.

In South Africa _____(?) is used a combination of satellite data for modelling management and visualization of catchment areas and for the management of hydrological disasters.

Satellite images are also used to monitor compliance with water legislations and to control excessive and unsustainable use of water.

We look forward to sharing our experiences and learning from the experiences of other countries in the uses of space technology to manage water resources and hydrological disasters.

Chairperson, in closing, my delegation is looking forward to a positive consideration of the various agenda items before us and would like to assure you of our full cooperation to ensure the success of this session. We will be asking for the floor on some of these agenda items in due course. Thank you Chairperson.

The CHAIRMAN *(interpretation from Spanish)*: I would like to thank the distinguished representative of South Africa for her to share with us with this Committee a series of very important news. First, the progress accomplished by South Africa's National Space Policy which involves setting up a South African Space Agency. We welcome that development with great satisfaction. It is a contribution to the work of the Committee and proof of the commitment of South Africa to interregional and inter-continental cooperation within the framework of promoting peaceful uses of outer space. Thank you very much for your contribution.

The next speaker on my list is the representative of Sweden, Madam Britta. I am going to ask my friend from Sweden to pronounce the name correctly. There are more consonants than vocals here. Madam Britta Hjertstedt, you have the floor.

Ms. B. HJERTSTEDT (Sweden) *(interpretation from Spanish)*: Thank you Mr. Chairman, very well pronounced.

(Continued in English) Since this is the first time that the Swedish delegation is taking the floor, we would like to commend you for your excellent work during this session.

Mr. Chairman, to be brief, Sweden would also like to support the French proposal to include the new item on long-term sustainability of outer space activities on the agenda of the Scientific and Technical Subcommittee, which we consider to be the appropriate forum in which to address this issue. Thank you.

The CHAIRMAN *(interpretation from Spanish)*: Very good. That was very quick and very efficient and I welcome your statement. I could not sum up your statement because it was quite short but very concise. Again, thank you very much. Again, thank you very much distinguished representative of Sweden.

The next speaker on my list is my friend, Mr. Da Costa from Brazil. You have the floor, Mr. Eduardo Da Costa Farias, Mr. Counsellor from Brazil.

Mr. E. DA COSTA FARIAS (Brazil) *(interpretation from Spanish)*: Thank you very much Mr. Chairman, dear friend. I think we are going to all try and follow the example of the representative of Sweden, that saves time. Of course, us Latinos we are going to speak as Latinos.

(Continued in English) Mr. Chairman, may I begin by expressing my satisfaction in seeing you chairing once again this important Committee. Under your able leadership I am sure that we will obtain very meaningful advances in this session. I can assure you of the full cooperation of the Brazilian delegation in this regard.

May I also take the opportunity to greet the Director of the United Nations Office for Outer Space Affairs, Dr. Mazlan Othman. I thank her as well as other members of the Office for the preparation of this meeting.

Mr. Chairman, the period between the last session of COPUOS in 2008 and today has provided Brazil with many opportunities to further expand its international cooperation activities in the field of the peaceful uses of outer space. Our country was able to detail some of these activities during the last meeting of the Legal and Scientific and Technical Subcommittees. This information was included as part of a document which was kindly being available by the Secretariat at the beginning of this session, document A/AC.105/923/Add.2.

Among the activities previously informed to the Committee, it was possible to mention the celebration of international instruments with Colombia, France, India, Italy, the Russian Federation and Venezuela, as well as the development of our initiatives with Argentina, Germany, Ukraine, the People's Republic of China and the United States.

With regard to the Regional Centre for Space Science and Research Education in Latin America and the Caribbean, CRECTEALC, Brazil and Mexico held last April in Brasilia, the Ninth Meeting of its Governing Council which was attended by diplomatic observers of several countries of our region. On that occasion, as already mentioned by their distinguished representatives to this meeting, Chile and Ecuador declared their interest in fully joining the Centre. It is a fact that Brazil and Mexico and the Secretariat of CRECTEALC are currently undertaking efforts to conclude a revised model Agreement for the adherence(?) of States.

Mostly recently made, as already mentioned by the Chinese delegation, Brazil and China signed an agreement for the provision of satellite images to the African continent. The reception of these data will be undertaking in cooperation of Egypt, South Africa and Spain, setting an example of how both developing and developed countries can play an important role in disseminating the benefits of the peaceful uses of outer space.

Since the last session of COPUOS, Brazil has also started cooperating with Japan in the field of environmental monitoring in the Amazon with the utilization of images from the ALOS(?) satellite. The initiative establishes important responsibilities on both countries and includes capacity-building and technology transfer.

Mr. Chairman, Brazil has always advocated for the principles present in the resolution that 50 years ago established COPUOS as a permanent body of the United Nations that the exploration and use of outer space should be only for the betterment of mankind and to the benefit of States irrespective of the stage of their economic and scientific development. Beyond that, Brazil defends that the outer space should be used exclusively for peaceful purposes.

As the most important international body devoted to the discussion on the subject of outer space, COPUOS should be countered(?) with growing capacity as well as with growing responsibility. This is especially relevant in the face of the context of growing intensity and complexity of space activities as has been mentioned by several delegations.

In this sense, Brazil defends the need for great integration of the activities of COPUOS and its two Subcommittees. It is important that issues be discussed from a political, legal as well as a technical perspective.

The Brazilian delegation is of the view that the international community faces today two important challenges regarding the future of space activities. One refers to the need to further develop international space law in a manner that builds upon the achievements of past decades. The other relates to the means of increasing the participation of developing countries in the use and in the sharing of the benefits of space activities. We hope that the discussions in this session of COPUOS can shed some light on both of these issues.

Mr. Chairman, before concluding this statement, the Brazilian delegation would like to make reference to your opening remarks in which you touched on very fundamental issues of the subject matter of this Committee. As previously indicated, we share your opinion that the United Nations and its member States cannot afford to ignore the need to respond collectively to the challenges presented by the growing and fast evolving space activities. Brazil is looking forward to the discussions on the initiative regarding the United Nations space agencies. Thank you Mr. Chairman.

The CHAIRMAN *(interpretation from Spanish)*: Many thanks to my distinguished friend, Mr. Da Costa of Brazil. A very interesting statement and I would like to personally express my satisfaction with the fact that you are here in Vienna working on this important subject and thank you for your support of the Chairman's work. We are ready to continue working with Brazil, an extremely important country and region. Thank you very much Minister.

I believe we have reached the end of the list of speakers representing member States under this agenda item. And now I am going to give the floor to the observers. The only request I have on the part of the observers is from the European Space Policy Institute, ESPI, represented by Madam Matxalen Sanchez-Aranzamendi. You have the floor.

Ms. M. SANCHEZ-ARANZAMENDI (European Space Policy Institute) *(interpretation from Spanish)*: Mr. Chairman, distinguished delegates, it is an honour and a privilege to take the floor here in this session of COPUOS.

Mr. Chairman, we believe that this will be a very successful session. We are happy to see you in the Chair.

(Continued in English) It is my pleasure to inform you of recent activities of the European Space Policy Institute, ESPI, which might be of relevance for the work of this Committee. ESPI is a Central European think thank for space policy issues. Its mission is to carry out studies and research and to provide decision-makers with an independent view on mid- to long-term issues relevant to the use of space.

Through its activities, ESPI continues to facilitate the decision-making process in Europe. It also organizes an International Research and Academic Network, ESPLAN, and cooperates closely with other relevant related governmental and non-governmental institutions.

Since the last session of the Committee, ESPI undertook numerous initiatives of potential relevance to the Subcommittee's(?) (Committee?) work. I would like to mention a few here.

On 20 and 21 November 2008, a Conference on the Fair and Responsible Use of Outer Space: An International Perspective was held at ESPI's premises. This Conference was co-organized by the International Institute of Astronautics, the Secure World Foundation, and ESPI. Around 20 high-ranking speakers were the current Chairman of the United Nations COPUOS, Ambassador Ciro Arévalo, and the past Chairman of this Committee, Mr. Gérard Brachet. As a result of the deliberations, a policy perspective entitled "10 Steps to Achieve the Fair and Responsible Use of Outer Space" was presented. The flyer can be accessed on the table at the back of the room.

The proceedings of this unique Conference will be published as a book in the course of this year too.

In 2008, ESPI also has published _____ *(not clear)* studies and policy papers covering areas like space applications, exploration, security and regulations. All of them can be downloaded from our website, www.espi.org.at. And ESPI as well continues to edit the Year Book on Space Policy where the next edition covering 2007-2008 is out since a few days and a series of studies in space policy, which recently continued with that volume on "Threats, Risks and Sustainability: Answers by Space". All these books are published by Springer Wien New York.

ESPI hopes that through its initiatives and the corresponding material which can also be accessed through our website, we can support the work of this Subcommittee(?) (Committee?). In this context, I am pleased to inform the Committee that ESPI has applied for consultative status with ECOSOC which should further strengthen the relations of ESPI with the United Nations system.

Finally, with particular pleasure, I would like to extend an invitation to all delegations for attending a Roundtable on New Perspectives for Latin America and Europe Cooperation in Space, which ESPI hosts on Monday, 8 June 2009, at its premises here in Vienna. Thank you Mr. Chairman.

The CHAIRMAN *(interpretation from Spanish)*: I would like to thank the representative of ESPI and thank you to the Director, Kai-Uwe Schrogel, whom we all know. He is a very dynamic person, making a very important contribution to the work of the Committee and ESPI has carried out under his leadership a number of very important events including the Roundtable on relations between Europe and Latin America. Thank you very much for your contribution and for your support.

With this, we have reached the end of the list of speakers under this agenda item. But now we are coming to a very important point in the work of this Committee which is the statement of the Director of the Office for Outer Space Affairs, Dr. Mazlan Othman. You have the floor.

Ms. M. OTHMAN (Director, Office for Outer Space Affairs): Mr. Chairman, thank you for this opportunity to address this session of the Committee on the work of the Office for Outer Space Affairs over the past year. I welcome you, Sir, and I am very pleased to see you again chairing this session of the Committee. I can assure you the full support of the Secretariat in carrying out your work to a successful conclusion at this session.

I would also like to welcome Suvit Vibulsresth and Filipe Duarte Santos as First Vice-Chairman and Second Vice-Chairman respectively of the Committee.

Mr. Chairman, distinguished delegates, I am pleased to inform the Committee that the Office has developed its operational priorities for the period 2009-2011 and it has been approved the Executive Committee of the United Nations Office at Vienna.

Drawing on the direction provided by COPUOS, as well as the Secretary-General's Strategic Framework Document for 2010-2011, the Office's priorities embodies principles of engagement that focus on leveraging space solutions for sustainable development and for keeping space governance and operation principles that centre on the Office delivering as one and strengthening our performance and accountability.

Some of the operational priorities of the Office 2009-2011 are predetermined by its mandates and programme objectives, while some are guided by the United Nations agenda under its development pillar. They include, among others, strengthening the intergovernmental process, discharging the responsibilities of the Secretary-General, supporting sustainable development with the focus on climate change, tele-epidemiology, tele-health and building indigenous capability in basic technology, securing global goods through the UNSPIDER Programme, the

work of ICG and the global array of space weather instruments, and enhancing cooperation and coordination within the United Nations system.

To reinforce these operational priorities, the Office has drawn up a forward-looking list of strategic partners who activities we will support through fellowships and grants in the period 2009-2011. To strengthen management of the programmes, we have put in place mechanisms that increase coherence and coordination of the planned work of the Office, mainstream lessons learned and enhances compatibility(?).

Indeed, as we enter a period of reduced resources as to the plan that looks through the five years ahead having it as core priority thematic areas of importance to this Committee is imperative. And to achieve this, we look forward to continuing receiving guidance from this body in mapping the way forward.

So, Mr. Chairman, distinguished delegates, I am now pleased to briefly report on the work carried out by the Office in the context of those priorities in the past year and to inform on the actions currently planned. The full text of my presentation will be made available in your pigeonholes later.

Mr. Chairman, distinguished delegates, in the past year, the Office continued to support a number of actions aimed at the discharging of the Secretary-General's responsibilities under the United Nations Treaties and Principles on Outer Space and related resolutions.

As reported, during the Legal Subcommittee, the Office is pleased to inform that deliberations in the Committee and its Subcommittees on matters relating to the registration of space objects, are yielding positive results. The Office has recorded a marked increase in States submitting both registration as well as supplementary information on their space objects and many States are actively working to implement recommendations made in the resolution entitled "Recommendations on Enhancing the Practice of States and International Governmental Organizations in Registering Space Objects".

In that regard, I am pleased to inform that Indonesia, Thailand and Saudi Arabia submitted registration information for the first time and that The Netherlands, Pakistan and the Republic of Korea informed on the establishment of their National Registries.

With regard to other responsibilities entrusted to the Secretary-General under the legal regime governing activities in outer space, in particular disseminating information provided by member States under the treaties and agreements, the Office would like to inform delegates that it is presently processing a notification by Brazil on the recovery and its return to the appropriate launching States of a space object discovered within its territory.

There has also been a notification under the Outer Space Treaty by The Netherlands of the placement of a space object in a _____(?) orbit.

On its Capacity-Building Programme on Space Law, the Office continued to promote the acceptance and implementation of the United Nations Treaties and Principles on Outer Space and Education. Within the limits of its capacity, the Programme organizes an annual workshop, provides advice on space law and policy-related issues, contributes to worldwide efforts to promote space law and provides technical assistance to help governments implement their commitments under the treaties.

This year's Workshop on Space Law will be held in Tehran in November 2009 and it is being jointly organized with the Government of the Islamic Republic of Iran and the Iranian Space Agency. This will be the sixth Workshop in its series.

Another Workshop will be held in 2010, the venue of which will be decided at a later stage.

Another important initiative of the Space Law Programme is the development of a curriculum for a basic course on space law that could be included in the Education Programmes of the Regional Centres on Space Science and Technology Education affiliated to the United Nations. The preliminary draft curriculum was circulated for information to the Legal Subcommittee in April this year and I would like to express my sincere gratitude to the Group of Experts that have contributed to this endeavour with experience and time. The work on the curriculum will continue in the coming months with a view to its finalization and eventual roll-out to the Centres and other interested education institutes worldwide.

Finally, the Office would like to inform delegations that Dr. Eileen Galloway of the United States passed away at the age of 102. We remember her by experience and knowledge and her life-long contribution and dedication to the development of space law.

Mr. Chairman, distinguished delegates, regional coordination mechanisms and initiatives play an essential role in enhancing the use of space science and technology and the applications for sustainable development. In this context, the Office is pleased with the progress made by our Regional Centres. All now offer regular-, long- and short-term courses and workshops on remote sensing, satellite meteorology, satellite communications and space science. Through perseverance and dedication, the Centres have overcome a large number of operational difficulties. However, one of the most important challenges still faced today is the limited participation of member States in the governing structures of the Regional Centres. Greater participation and contributions by member States is absolutely essential to their continued operation and I appeal to you all to actively support this important regional initiative. More information on the achievements of the Centres had been reported by their Directors and can be found in the publication entitled "Capacity-Building in Space Science and Technology".

In the past year, still in the context of supporting regional initiatives, the Office contributed to the preparations undertaken for the Sixth Space Conference of the Americas by providing financial support and participating in the Second Meeting of Representatives of the Pro Tempore Secretariat of the Fifth Space Conference of the Americas and the International Group of Experts of the Space Conference of the Americas, which was held in Ecuador in August 2008.

I am further pleased to note that the Third African Leadership Conference on Space Science and Technology will be held later this year in Algeria. The Office actively supports this Conference and will continue to work closely with the organizers to ensure that the United Nations system contributes effectively and coherently to making space work for Africa.

Another important component for enhancing the use of space solutions to promote sustainable development is an integrated approach to space technologies applications. The Programme on Space Applications has used this as a basis in the planning and implementation of its capacity-building activities, particularly with regard to mountain area development, tele-epidemiology, tele-health and climate change. More information on the activities and achievements of the Programme in the past year is contained in the report of the Expert on Space Applications. I am grateful that the Scientific and Technical Subcommittee approved the activities scheduled by the Programme on Space Applications for 2009.

In 2010, under the priority thematic area of promoting space solutions to support sustainable development, the Programme on Space Applications will be holding activities related to climate change and its impact on water resources, socio-economic benefits of space activities and small satellite development.

Distinguished delegates, as stated by the Secretary-General in the Organization's Strategic Framework for 2010-2011, the United Nations is uniquely pleased to lead efforts to address global threats and to secure the corresponding global goods. Space science and technology and their applications, given their inherent nature and reach, are ideal for providing those needed global solutions.

The Office's work in sustaining, overseeing or promoting global platforms and networks relating to space weather instruments, global navigation satellite system of systems, disaster management and emergency response, aim at attaining such global goods.

The International Heliophysical Year 2007, with an international campaign running from 2005 to 2009, aimed at exploring solar-terrestrial interaction was successful in deploying a worldwide network of ground-based instrument arrays for space weather investigation, particularly in developing countries. The operation of these global instrument arrays has resulted in a unique partnership between providers of instrument arrays and host countries that provide manpower, support to obtain data from these instruments.

Later this year, in Jeju, the Republic of Korea, the Office will hold, together with ESA, NASA and JAXA, the fifth in its series of workshops which will focus on the ongoing operation of ground-based worldwide instrument arrays for investigating the impact of solar-terrestrial interaction, specifically instrument arrays with GNSS on board US Air(?) Force(?) Space Weather Investigations.

The Office will again organize a Workshop next year focusing on space weather to support the agenda item on the space weather initiative of the Scientific and Technical Subcommittee.

Another example of utilizing the United Nations as a vehicle for obtaining global public goods is the International Committee on GNSS, Global Navigation Satellite Systems, ICG. As the Executive Secretary of the ICG and its Providers Forum, the Office continued to support the preparations of these

meetings and in the interim planning and working group activities. The Programme on Space Applications is implementing a Programme on GNSS Applications, aligned to the Work Plan of the ICG. And in this context, one workshop and one training course will be held in 2010.

I am pleased to inform the Committee on some milestones of the Third Meeting of the ICG which was held in Pasadena, California, United States of America, from 8 to 10 December 2008. The ICG Meeting reviewed developments in global navigation satellite systems, considered matters of interest to its members, associate members and observers. It reaffirmed the role of the Regional Centres for Space Science and Technology Education affiliated to the United Nations as ICG Information Centres and it accepted the invitation of the Russian Federation to host the Fourth Meeting to be held in St. Petersburg from 14 to 18 September 2009. The ICG also noted the offer of the European Committee in Italy to jointly host the succeeding meeting in 2010.

With respect to the global platform on disaster management, I am pleased to report that the implementation of the Work Plan of the UNSPIDER Programme has also moved forward. A number of outreach activities were carried out and supported in the past year and the development of the Knowledge Portal has indeed progressed.

The Office has also provided technical advisory support to Burkina Faso and Namibia and will be providing support in the near future to Togo.

At this point, I am pleased to draw your attention to the International Workshop currently being held in Conference Room II, co-sponsored by the Government of Austria, and entitled "Building Capacities to Reduce Disasters". The Workshop is part of the UNSPIDER Programme 2009 outreach activities.

The UNSPIDER Programme as you know is also being funded predominantly from voluntary contributions, both financial and in-kind, and we are grateful to Austria, Germany, China, Croatia, Czech Republic, Indonesia, Republic of Korea and Spain, for their generous support.

We invite all member States to consider contributing to the Programme and take advantage of the available opportunities and in this regard we have prepared the document "Opportunities for Cooperation" which provides an overview of the current needs of the UNSPIDER Programme for 2010. These needs include cash and in-kind contributions as well as the provision of senior experts as non-reimbursable loans or associate experts. The document, ladies and gentlemen, is available in the back of the room.

The fourth global platform supported by the Office is the COSPAS-SARSAT system for search and rescue. A training programme was held in January 2009 to support the Latin America and Caribbean region. In 2010, a training course will be held to support the Western Asia area.

Mr. Chairman, distinguished delegates, the Office continues to coordinate and enhance inter-agency cooperation in space-related activities within the United Nations system, as you know, by organizing and serving as the Secretariat of the United Nations Inter-Agency Meeting on Outer Space Activities which is the primary coordination mechanism in the United Nations system to achieve better cooperation in space-related activities. This Meeting provides a platform for entities in the United Nations system to share information on their current and planned future activities with a view to preventing duplication of efforts and increasing synergies, particularly in light of the increasing importance of space-based information. Information on the outcomes of the Meeting this year will be provided to this Committee by the Chairman of the Twenty-Ninth Inter-Agency Meeting in his statement.

Last year, the Office hosted the Ninth Plenary Meeting of the United Nations Geographic Information Working Group in Vienna and we are pleased to inform that the Office and the United Nations Economic Commission for Africa were elected to co-chair this Working Group for the next two years.

The Office also continues to serve as the United Nations focal point on re-entry of nuclear power space objects for the Joint Radiation Emergency Management Plan of the International Organizations. In this context, the Office continually monitors launches and decays of space objects and we maintain a 24/7 hotline to respond to queries on space objects.

With respect to increasing public awareness on the benefits of space, the Office continues to conduct activities for the general public and young people. This year we celebrate the tenth anniversary of the General Assembly's Declaration of World Space Week. To mark this important milestone, the Office will work with its numerous global partners, particularly the World Space Week Association, the

Austrian Space Forum and the Space Generation Advisory Council.

I am also pleased to inform delegates that in October the Office will be organizing jointly with the United Nations Information Service the world premier of the play "Space and Time" at the Vienna International Centre. The play, written to commemorate the International Year of Astronomy 2009, will be performed by the acclaimed Siddha(?) Danya(?) Theatre Company. Representatives from the Permanent Missions and VIC-based organizations will be invited to this premier.

The Office also intends to hold special World Space Week events outside of the VIC to benefit the Viennese public.

With regard to exhibitions in public outreach activities, as delegates are aware, 2011 will be the fiftieth anniversary of the first meeting of this Committee. It will also be the fiftieth anniversary of the first human space flight. To commemorate these historic milestones, the Office is exploring a number of awareness-raising activities and has begun making preparations for some. Consequently, the Office is pleased to inform delegations that the United Nations Postal Administration has consented to produce a special commemorative space stamp series for 2011.

The Office would, therefore, like to invite delegations to consider how best to mark these anniversaries. For example, a large exhibition at the Vienna International Centre celebrating five decades of human space flight and the achievements of the Committee over the last 50 years, to be held in June 2011, could be the main event with other related events held throughout the year. The Office welcomes any guidance by the delegations in this matter.

The Office would also like to take this opportunity to express its gratitude to various organizations, in particular the United Nations Information Service, the United Nations Security and Safety Services and the UNIDO Buildings Management.

Mr. Chairman, distinguished delegates, in executing the implementation of its priorities, the Office relies on several pre-set conditions, namely, its legislative mandate, the availability of adequate financial and human resources and the active engagement and cooperation of our stakeholders.

As you will recall, the Office's Strategic Framework for 2010-2011 was approved by the Committee last year. It was reviewed by the Committee on Programme and Coordination, CPC, at its forty-eighth session held from 9 June to 3 July 2008. The CPC highlighted the need for the Office to continue to address the issue of climate change, particularly in view of its impact on different activities of the United Nations and the need for a more focused and systematic strategy in this regard. The CPC also emphasized the importance of strengthening the capacity of developing countries relating to the development of national space law. The General Assembly endorsed the recommendations of the CPC relating to the Office's Strategic Framework for 2010-2011 and the Framework document, together with the CPC's recommendations will be circulated to all delegations during the course of this session.

With regard to the Office's financial resources, I would like to confirm that the Office expects a level of its regular budgetary resources to be reduced by two per cent. Despite the anticipated reduction, the Office will be taking measures to mitigate the negative consequences of this cut as far as possible. The Office's budget and programme _____ cycle(?) has been finalized and has been scheduled for review by the Advisory Committee on _____ (?) budgetary questions later this month. I think it will be on 19 June.

Notwithstanding the regular budget challenges for the next biennium, the Office has been fortunate and is profoundly grateful for the continued support shown by the governments and donors to our Programme. Since June last year, the Office has received over 850,000 dollars in cash contributions. In addition, each of the Office for Outer Space Affairs' activities has been generously supported in-kind by each local host government and institution. The cash and in-kind contributions received by the Office for implementing its Programme of Work represents two thirds of the overall cost of such activities.

As is evident, voluntary, cash and in-kind contributions remain a critical component for the successful implementation of the Office's Programme of Work. I hope and I trust that the Office can continue to rely on your generous contributions and support.

I would now like to turn to our human resources, inarguably the most vital resource of the Office. Without the experience and knowledge that is entrenched in the staff, the Office would not be able to implement many of its numerous and multi-faceted activities.

Now since the last session of the Committee, the Office has experienced a number of staff movements. New appointments include Mr. Lawrenz Zaram(?) of Romania, as Head of the UNSPIDER Bonn Office, and Mr. Shriri(?) Shravan(?) of India as Head of the UNSPIDER Office in Beijing. Mr. Juan Callas(?) Delagran(?) from Guatemala was appointed to serve on the UNSPIDER team in Vienna. Mr. Peter Stump(?), funded by the Government of Germany, joined the UNSPIDER team in Bonn and Mr. Michael Lyker(?), funded by Austria, joined the UNSPIDER team in Vienna as an Associate Expert. Mr. Tony Yong Suk Lu(?), an Associate Expert from the Republic of Korea, moved from Bonn to spend the second year of his assignment in Vienna.

The Chief of the Space Applications Section and United Nations Expert on Space Applications, Ms. Alice Lee, retired on 14 January 2009, after overseeing the work of the Section for five years. We wish her all the best in her future endeavours with NASA.

In the meantime, Mr. Hans Haubold has been ably serving as the Officer-in-Charge of the Programme on Space Applications. Mr. Haubold's dedication to the Programme and its activities are well-known to the Committee and his management and strong leadership during the past months have ensured that the Programme remains on track to implement its planned activities.

Finally, the Office is pleased to inform the Committee that the recruitment process for filling the post of Chief, Space Applications Section and the United Nations Expert on Space Applications has been completed. Mr. Takao Doi of Japan has been selected. He has served with the Japanese Aerospace Exploration Agency, JAXA, for over 20 years. He was the first Japanese astronaut to perform a space walk and in March 2008 flew to the International Space Station to attach the first section of the Japanese experimental module, Kibo. Mr. Doi, holds a PhD is aeronautical engineering and another PhD in astronomy. He is expected to take up his new functions in September 2009.

Mr. Chairman, distinguished delegates, I am coming to the last page. Increasingly, one of the Office's major challenges has been the lack of adequate human resources. The growing demand placed on the Office over the past years both substantively and administratively, coupled with the relatively high staff turnover for a small office, has sometimes stretched beyond the Office capacity to continue to adequately and qualitatively meet its full range of obligations. Should these conditions continue, the Office may need to reassess the level of its available human resources vis-à-vis its obligations with a view to identifying ways and means of addressing this challenge in the long term including requesting additional staff resources.

Finally, the Office benefits extensively from the cooperation it receives from you, the stakeholders. The expression "no man is an island", penned by John Donne, perfectly captures the crucial interaction needed for a Programme such as ours to succeed. I would, therefore, like to acknowledge and express the Office's sincere and deepest gratitude to all governments, space-related intergovernmental and non-governmental organizations and other entities whom not all I could mention in my statement that have contributed to this Programme. The Office deeply values these partnerships and we will, of course, seek further opportunities to strengthen and build upon them.

Mr. Chairman, distinguished delegates, let me now conclude by assuring the Committee of the commitment of my Office to increasing the awareness of the relevance and importance of space exploration and applications to the betterment of the human condition and particularly to strengthening the capacity of developing countries to partake in those benefits. Thank you Mr. Chairman, and thank you distinguished delegates.

The CHAIRMAN *(interpretation from Spanish)*: Thank you ever so much Dr. Othman for that statement, for this very, very comprehensive report on the activities of the Office for Outer Space Affair over the last year. I would like to say that, for us, the Office is the right hand of our meeting. If the Office for Outer Space Affairs does not have proper resources to work, then, of course, we are corresponding, we are diminished in our efforts. I personally have been able to witness to what extent the staff of the Office for Outer Space Affairs is extremely highly committed to these activities and since there are more activities, ever more activities that they are involved with, we probably have to indeed a lot more resources. You mentioned the fact that two thirds of the financing comes from voluntary contributions so I would certainly like to reaffirm that it is necessary to appeal to member States as you have done so.

The Ambassador of Chile has just asked for the floor. You have the floor Sir.

Mr. R. GONZÁLEZ ANINAT (Chile) *(interpretation from Spanish)*: Chairman, thank you. I perfectly well agree with you and I would like to

endorse the appeal that you have just made. I perfectly endorse what you have said. Everything that is done by the Secretariat, the efforts and the work that has been accomplished has been excellent for ever so many years. Indeed, this has been stated time and time again that we have appreciated the efforts of the Office for Outer Space Affairs. However, the more the Office for Outer Space Affairs extends itself, the more its budget is reduced. I do not think that we can keep going this way, quite simply.

If everything here is placed in the proper context, we realize that measures must be taken so that at the next General Assembly in a resolution, at the very least, there is expression of the disappointment that least developing countries as to the lack of resources that the Office for Outer Space Affairs is unfortunately subject to. The Office for Outer Space Affairs has done excellent work. As far as the Conference of the Americas is concerned, for example, they have excellently helped us to organize the Conference of the Americas and now we are indeed preparing the upcoming meeting in this regard, this is an upcoming meeting to be scheduled in Chile, and indeed I believe that this needs reference in the report. This needs to be reflected in that report. For the time being it is not so if I could encourage the Secretariat to do that.

We have full trust in the qualities of Dr. Othman, whom we are most familiar with for ever so many years. I would like to just recall that we are certainly anxiously awaiting what the Office has to say as to the January seconding of some experts on the application of space technology who might usefully tell us more about the availability of a satellite for sustainable development.

As I have already said, we are in very good hands indeed here. The Secretariat and the Office are working in an excellent fashion. However, we are being institutionally masochistic here because the better they work, the more we seem to be cutting their budget down. Thank you.

The CHAIRMAN *(interpretation from Spanish)*: Thank you ever so much. Greece, you have the floor.

Mr. V. CASSAPOGLOU (Greece) *(interpretation from French)*: Thank you very much Mr. Chairman. Mr. Chairman, first of all, I would like to congratulate you on your re-election to the position of Chairman of this Committee. Last year, because of those soccer events, the psychosis of our era, if you will, I was unable to attend this session here. I am referring to the insane prices, air fares, because the European Soccer Cup was held in Vienna. That prevented me from flying here. In any case, I am very happy to see you at the helm of this Committee at this session.

I wanted to simply add a few words to what our friend the Ambassador of Chile just said about the Office.

First of all, for 50 years now, the Office has been active and it has always been led by personalities of the higher calibre, starting with Peré(?), then Vladimir Kopal and so on and so forth and this brings us to this day and it is the second time that our dear friend has been appointed. I am, of course, referring to Professor Mazlan Othman, who has replaced my friend, Sergio Camacho.

Now, here is the problem I wanted to mention. COPUOS had far fewer members, 18, then 24, today there are 58 members and we know that this process has gone far beyond what was anticipated in spite of the expansion of the United Nations and sometimes the demands on our colleagues at the Office are superhuman. They work as the administrative unit of the general Secretariat of the United Nations but at the same time, their functions pertaining to the secretarial support of the Committee sessions and then in addition to that, they oversee the implementation of United Nations Programmes related to outer space. I will clarify. In the area of education, for example, they oversee the setting up of Regional Centres for Space Science and Technology Education, the SPIDER Platform Programme Number Five and so on and so forth. The list goes on and on. Furthermore, they have to oversee the registry of space objects. And what I have listed is just the very minimum, the core of their activities.

We have been insisting over the years that the budget should be increased and their remuneration should be increased. The share allotted by the Secretariat of the United Nations in New York should be more generous, should be more appreciative of the real needs of the Office for Outer Space Affairs so that the Office can continue fulfilling these vast and far-reaching responsibilities.

Every year, we take stock of the work of the Office and we have to say that this work is incredible. It is really excellent in spite of the weaknesses, the shortcomings of an administrative or a financial nature.

Fortunately, some countries have been very generous in making in-kind contributions or through

seconding experts, highly-qualified staff. What my friend, the Ambassador of Chile, Raimundo González, has pointed out is very correct. We should make a call, an appeal in some form or other to the United Nations Secretariat, maybe at the time of the next session of the United Nations General Assembly within the framework of the Fourth Committee, call on the United Nations to increase not to decrease the budget. We know that the world is going through a terrible economic crisis but be that as it may, the United Nations must make savings and cut costs in other areas.

Mr. Chairman, this is what I wanted to say and I thank you for your attention. Thank you very much.

The CHAIRMAN *(interpretation from Spanish)*: Yes, I would like to thank the distinguished delegate of Greece. Indeed, we agree here and I am sure no one in this room will have any objections to what you have mentioned, a series of actions as required to make sure that the work of the Committee be brought to the knowledge of the general public through our reports, maybe through the General Assembly, but also we need to find a form, a resolution to very clearly state the need for improving the way the work is supported. Thank you very much for your contribution.

Now Professor Rao of India has asked for the floor. You have the floor Sir.

Mr. U. R. RAO (India): Thank you Mr. Chairman. First, let me congratulate you for guiding the proceedings of the Conference very ably and efficiently and also Dr. Mazlan Othman and her group are really making efficient preparations for this whole programme.

I fully agree with my dear friend, the Chilean Ambassador, Raimundo González, his suggestion. I think you need more money because you have to expand, in my opinion, activities to a much larger extent.

Let us take, for example, what is happening in Africa. You look at the African situation. There are hardly very few conferences taking place and most of the countries still are just getting into legislation(?) of space. If you look at the conditions in Africa, take the food security, for example, which is a most important thing, their food productivity is only about _____(?) productivity is only around 1.2 tons per hectare and this is a very, very meagre productivity. Surely, and we know that we can make the calculations regarding the population explosion and so on and see that they will have to reach in the next 20 to 30 years something like at least three tons per hectare to feed their people.

I will take, for example, the number of doctors available. There are hardly any tele-medicine facilities there and if you look at it, my _____(?) did about three or four years ago was you have one doctor for every 250 people in the United States, one doctor for every 2,500 people in India, and one doctor for every 25,000 people in Africa and that is the situation. There is the facility available for people in the rural areas, except in the cities and most of the doctors that stay in the semi-urban and urban areas. Tele-medicine would have made an enormous change in this process.

But if we want to have these type of conferences, can these people that at least space has been used and also demonstrate how this can be done because you have other areas where demonstrations are already there, as in India, for example. Then I think we need to have more money and we need to have much larger exposure to Africa. And this has to be done which essentially means we need to really get a much better amount of support for the wonderful work that COPUOS is doing. And I think that all the members of this Committee would support you. You will have the entire support for asking for more money because this is very well used and I fully support this.

And the same problem is in Asia too. The Asian productivity is also very low and the population is extremely high and we have a serious problem of food security and unless we get into sustainable development, it is going down, actually decrease the plateau. And these sustainable development practices can only come by using the space technology.

Therefore, I would suggest that you please try to somehow convince the United Nations Organization and whatever the countries are to get better support so that you can sell the people better. Thank you Mr. Chairman.

The CHAIRMAN *(interpretation from Spanish)*: Thank you very much Professor Rao. Any other comments? The Ambassador of Chile.

Mr. R. GONZÁLEZ ANINAT (Chile) *(interpretation from Spanish)*: Thank you very much Mr. Chairman. I just wanted to quite simply say that I welcome Professor Rao's contribution to this Committee. I followed with great attention what you had to say and he has placed the emphases in all the right places.

This is not just about an increase in budget. It is about a very important initiative, admission of the fact that this Committee and its reports to the General Assembly cites the recent General Assembly debate on food security, for example, has made repeated efforts as to space and health. Thank you very much.

The CHAIRMAN *(interpretation from Spanish)*: Thank you. It is very clear that the Panel, if I can summarize the impressions of the room that the Panel on Space and Health was of fundamental importance. I am very thankful for that statement.

The delegation of Colombia please.

Mr. J. H. OJEDA BUENO (Colombia) *(interpretation from Spanish)*: Thank you Mr. Chairman and good morning. The delegation of Colombia would like to show its agreement with what has just been said by the distinguished delegates of India and Chile. We support and endorse the proposal to promote these ideas within the United Nations, inter-agency cooperation within the various bodies of the United Nations system, as Ambassador González has been suggesting, that have to do with health, culture, the environment. This cooperation is essential. It is never easy but here in Vienna, I think, as in the case of UNIDO, we should also work with our neighbours, if you will, in terms of funding. We know that great funds have been contributed to the work of UNIDO in regard to environmental programmes and this is work in which we should be very much involved as well. Thank you very much.

The CHAIRMAN *(interpretation from Spanish)*: I would like to conclude this discussion because we have presentations. Let us keep working at the level which has been outlined here and maybe I would like to ask the Secretariat to carry out a small study of the various options that exist to raise additional funds and voluntary contributions. Please, Secretariat, this is a request to see what options exist, what possibilities exist, as the Colombian delegate has just pointed out. There are certain options that exist here in Vienna on a bilateral basis as well. Thank you very much again.

Technical presentations

Now we continue with our discussion. I have the pleasure of calling on Madam Takemi Chiku. This is the first presentation this morning. Takemi worked with the Secretariat and she will address the issue of inter-regional cooperation, particularly in the area of investing the interests of young people and the contribution of JAXA to human development. Madam Chiku, you have the floor.

Ms. T. CHIKU (Japan): Thank you very much Mr. Chairman for giving JAXA an opportunity to present what our Space Education Centre has achieved.

In the past years, as contributions to human development, a key concept recognized by UNISPACE III which adopted the Vienna Declaration on Space and Human Development 10 years ago. There is a link between the Action Team on Capacity-Building, chaired by Japan, and our Space Education Centre.

The focal point of Japan who sent out the first communication inviting other countries to join this Action Team, is actually the same person who realized the idea of establishing a Space Education Centre and serves as its First Director.

The conviction of the need to work closely with developing countries, particularly for their young people, was something that our Centre inherited from the original idea for this Action Team's work.

Now different from some other space agencies that have space education activities, our work(?) as it is now really to secure the workforce to support future space activities. Our focus is on the welfare of the children.

Our country, Japan, may be known to some people at safe and maybe rich countries but in a pursuance of material richness, we might have lost something. Some of our young people apparently did not think too much before killing their friend, killing their parents and killing themselves. And alarmed by the rapid increase in juveniles committing serious crimes, we wanted to do something about it and we found that space offers fascinating means to turn young people into more positive about their life and for the working.

We use space materials to get young people more interested not only in science and technology but also in doing other things in our life and there are a few important messages that we always convey in our activities. Amongst them, preciousness of life is the most important message.

As we study more and more about the origins and the position of the Universe and life and as we continue our long search for Earth-like planets, we come to appreciate more and more all forms of life on our precious planet.

The spirit of 'never give up' is another important message that we always stress as it is essential for everybody who wants to be successful in this challenging world. We also want our young people to understand how important and how rewarding it is to work towards building a better future together.

So, for us, space education is an effective means to enhance human development at the individual level to help young people full of curiosity, adventure spirit and craftsmanship, always aiming for the best in whatever they do. And based on such conviction, we carry out these many activities with a staff of about 20.

And we have successful results in our country, particular through our school support, increasing the number of schools to which we provide customized support to classroom teaching using our space materials. And also through our community support, increasing the number of space education events that we organize throughout the country.

We managed to achieve these results without increasing staff resources. Now how did we do that? There are a few key elements of success and when things inspire teachers. We work very closely with teachers because we believe they have much better understanding of young people's needs and feelings through their daily interactions with them. And those teachers who have worked with us are now convinced of the effectiveness of space materials to stimulate students interest can now bring space into their classroom without much support from us. And they also spread their knowledge and skills to other schools when they are transferred to new schools.

We also started to provide training for future teachers who are now studying at the universities in the Faculties of Education.

Now as we organize education events around the country, we involve the local communities from the very beginning from the planning stage and help increase their sense of ownership of those events. We then gradually transfer to those local communities the responsibilities as the main organizers which, at the end, enabled us to reduce the amount of our resources spent for each event.

And we took the initiative to bring space home by introducing space-related basic experiments that parents can do easily with their children. We received word of appreciation from a number of parents who have now found common subjects to talk about and something to enjoy together with their children.

All these efforts that we made all contributed to the increased interest among schools and communities around the country in carrying out space education activities in various manners.

Now as much as the opportunities arise, we share experiences in expanding space education activities with other countries and as we do that, we use the existing frameworks for space cooperation and we try to create synergies of efforts made through different frameworks. And one of the frameworks that we use is the Asia-Pacific Regional Space Agency Forum, known as APRSAF. Its Space Education and Awareness Working Group aims to, among other things, establish friendship beyond the border for space education events. And we were privileged to have your participation, Mr. Chairman, in the last meeting of this Working Group in Hanoi, Viet Nam.

And this Working Group has become increasingly active in promoting space education activities in our region. These two regional annual events, namely the APRSAF Water Rocket Event and Poster Contest, also contribute to the global efforts that many participating countries conduct national competitions for the events during the World Space Week to select participants for this APRSAF event.

As for the Poster Contest, the theme selected for last year and for the next one are closely linked with the International Year of Astronomy that we celebrate this year. Using the posters submitted for the last Poster Contest, we also developed a calendar this year as our contributions to this special year.

And now this slide shows some other joint activities that we carry out through APRSAF.

We also utilized the framework on opportunities provided by UNESCO and supported Space Education Programme which is, by the way, one of the specific actions recommended by the Action Team on Capacity-Building.

In response to the indication by UNESCO, we have participated in and provided technical and material support to all these education events on this slide. And in a week from now, I will start visiting multiple cities of Ecuador and Peru to support education events together with UNESCO.

In addition to APRSAF and UNESCO, we used some other frameworks for cooperation to reach out to other countries outside Asia and the Pacific.

We appreciated the opportunities to work with those countries that have served as the Pro Tempore Secretariat of the Space Conference of the Americas and are making progress in strengthening interregional cooperation in space education. For example, Colombia successfully organized a space event just last month in Barranquilla(?) with the participation of more than 24,000 students and 1,000 teachers.

And as a concrete step forward in interregional cooperation, we have not only provided support for this event but also have invited the winner of the Water Rocket Competition held during this event to participate in the next APRSAF Water Rocket event to be held in Bangkok, Thailand. We intensely extend a similar invitation to the winner of the Water Rocket Contest that may be organized at the Regional Space Camp to be held in Salinas, Ecuador, later this month.

As for countries in Africa, our contacts have been mainly through UNESCO and JIDA, the Japan International Development Agency, but we will be happy to explore other avenues for cooperation as the opportunities arise.

While we have introduced our space education teaching methods and materials in developing countries, we did actually benefit from inputs provided by teachers and educators in developing countries and one of these examples of such is the Water Rocket for Educational Purposes to teach physics and the basics of rocket science using water rockets.

And in introducing the Spanish version of the Educators Manual for Water Rockets, together with UNESCO, we received valuable support and inputs from our colleagues in Latin America and we have initiated discussions to produce even a Portuguese version of these Manuals.

And as a result of the Workshop that we co-organized with the Victorian Space Science Education Centre of Australia, which was attended by educators from 12 countries including Asian countries and Argentina and Colombia, we now have the online forum for anybody interested to exchange teaching methods and material for water rocket activities. And this map shows the countries to which we provided technical and material support for their water rocket activities. And we are receiving various ideas from teachers and educators in those country to further enrich our education material and this is something that we wanted to present as we are very pleased to have this mutually beneficial collaborations with educators in various countries.

Now I would be remiss if I did not mention the International Space Education Board, or ISEB, which provides an important framework for collaborations among space agencies to achieve the objectives indicated on this slide. JAXA currently serves as its Chair and the focus of the Joint Project of ISEB is actually on the university and graduate students at this moment. But in the case of our Space Education Centre, we support Japanese students to participate in those ISEB projects on the understanding that they help our activities for primary and secondary schoolchildren in return. So we are, to some extent, using the opportunities provided by ISEB for Japanese students to recruit collaborators for our education activities for younger people. A best example of such is the IAC Student Programme. We are doubling the number of Japanese students that we sponsor to participate in the IAC in Daejeon this year and we are working closely with the Local Organizing Committee of Korea, not only to ensure the success of the IAC Student Programme, but also to support the Space Festival that they are organizing for local children. And during the term of our chairmanship, we are hoping to initiate the joint activity through ISEB for the primary and the secondary schools.

Mr. Chairman, the establishment of Action Team 4 in UNISPACE III was an innovative participatory measure to optimize results in implementing the recommendations of the United Nations Conference. It demonstrated how much can be achieved if countries collaborate and putting their efforts towards common goals.

Now this can be achieved at the individual level if the frameworks for cooperation are provided at international level. What our Centre is trying to achieve is to establish a network of space education efforts at various levels effectively using the existing frameworks for cooperation working with not only organizations but also individuals who share our principles and appreciate the preciousness of life.

Anyway the _____(?) is convinced of the power of space to inspire young people, stimulate their interest and motivate them to work hard towards common goals and success can effectively carry out space education activities.

We are, of course, aware of the magnitude of the challenge to carry out activities for the benefits of

all young people because of the sheer number of them. There are 2.2 billion young people under 18 globally and 2.3 million young people under 20 just in our country alone. But we are convinced that this magnitude of challenge, however, must not discourage us from studying and expanding space education efforts because every single success of our efforts to have a positive impact on one child to have a hopeful life, it is one concrete step forward in achieving those goals and could have an enormous lasting impact not only one individual but also possibly on many others.

However modest our efforts might be, what we are trying to do throughout space education activities is to build a foundation of peace in the minds of children by making as many children as possible realize the preciousness of life and the importance of working together to build a better future. And this is, Mr. Chairman, how we contribute to building peace through space education efforts targeted at human development at individual level, slowly but surely. Thank you very much for your attention.

The CHAIRMAN *(interpretation from Spanish)*: This has been a truly impressive presentation. This is the noble dimension of space activities and it cannot be over-estimated. This is a powerful tool for the Committee and for the international community.

Ecuador has asked for the floor, then Colombia, then China. Ecuador please.

Mr. J. BARBERIS (Colombia) *(interpretation from Spanish)*: Thank you Chairman. I am thinking back to the last sessions, Mr. Chairman. I have asked for the floor because I think it is very important to emphasize the more salient points of the presentation made by my friend Madam Chiku. Ecuador is very aware of the impact that new generations, young people, have and how important it is to promote education through projects of this type and we do that, *inter alia*, through cooperation with the Japanese colleagues, with JAXA. I want to congratulate Ms. Chiku for the presentation and express our gratitude for the fundamental work pursued by JAXA around the world for the benefit of future generations. Thank you very much.

The CHAIRMAN *(interpretation from Spanish)*: Thank you Ambassador.

The distinguished representative of Colombia.

Mr. J. H. OJEDA BUENO (Colombia) *(interpretation from Spanish)*: Thank you Mr. Chairman. Thank you Ambassador for these excellent words. We share your view and just as Colombia, we are grateful and appreciative of the generosity of Japan, not only on the regional scale in Asia-Pacific, but also around the world. And in my case, the Government of Colombia is grateful for the involvement of young people in such programmes designed to raise awareness of outer space and space activities. Our colleague from the United States mentioned the first step on the Moon 40 years ago but then there is a sort of generation gap that we need to be aware of in terms of awareness of outer space exploration, space-related knowledge. And Dr. Takemi Chiku and Japan have really contributed to bridging that gap. Thank you very much.

The CHAIRMAN *(interpretation from Spanish)*: Thank you distinguished delegate of Colombia.

The Ambassador of Chile, Raimundo González, has the floor.

Mr. R. GONZÁLEZ ANINAT (Chile) *(interpretation from Spanish)*: Thank you very much Mr. Chairman. It is at the same time easy and difficult to comment on this presentation. It is easy because we have known Takemi for a long time. She is indefatigable in her fight for the cause of human development, particularly as it relates to space activities. She has enormous energy and they use very sophisticated technology but in the end it is the impact on human development, social development on the young people in this case but all generations that matters, in the case of my country, as well. This is very needed. The presentation was truly notable not only because of its contents but the challenge that it refers to.

Particularly I would like to congratulate Ms. Chiku and her country on behalf of my delegation and express our aspiration, our hope that in her next trip to Latin America she will also include my country, Chile, which is deeply involved in this work and we follow their initiatives with great appreciation. In the case of Chile, we are involved in an ongoing debate as to the ways to overcome the challenges, the barriers that separate us from others, and again congratulations. Thank you.

The CHAIRMAN *(interpretation from Spanish)*: Thank you Ambassador of Chile.

Professor Rao, you have the floor.

Mr. U. R. RAO (India): Thank you very much Mr. Chairman. I was very impressed by the efforts of JAXA. The numbers are very large and it is extremely difficult to reach all the numbers of the children. Surely they are at the best age to really teach them because they are most curious people, the curiosity of children is absolutely unlimited, they want to learn everything. But I think we would be able to, which we have found, that while, on the one hand, yes, it is very necessary to bring up the children and give them these lessons and so on. It is equally important to really also give these things to the teachers. These teachers who get their degree or whatever it is and become teachers at the age of 20 and 25, then they are stagnant and most often they do not have any possibility of improving their own knowledge. And unless you made the teachers knowledgeable, they cannot pass on the new knowledge to the children. Therefore, they can be a great multiplying factor in reaching the largest number and that makes an enormous difference. Therefore, we must equally give an importance to ensure that the teachers are also provided opportunities and using space for essentially improving their own knowledge so that they become a great multiplying factor. Thank you Chairman.

The CHAIRMAN *(interpretation from Spanish)*: Thank you very much Professor Rao.

Saudi Arabia has the floor.

Mr. M. A. TARABZOUNI (Saudi Arabia): Thank you Mr. Chairman. I am really very pleased to see what it is the Japanese have done but I just received an e-mail from my daughter which I will read it to you. It said "yes, I already get it. It was amazing. Thank you for the posters and the videos you have provided". So that means actually even in our schools we are given this and we are giving contributions to the schools by giving the posters and the videos so that they will learn about what is space and they are getting comprehensive in this and they will be talking about it to their families and their relatives and friends. Thank you.

The CHAIRMAN *(interpretation from Spanish)*: Thank you very much representative of Saudi Arabia. I think that the example of your daughters missive was certainly very, very good by way of illustration. My three children are also very interested in everything having to do with outer space and you can imagine the sort of multiplier effect that this involves in a given country or given region when there are children who have boundless imaginations and curiosity. Thank you very much certainly. Thank you Ms. Chiku for your presentation.

Now let us go on to the next presentation. I would now like to give the floor to Mr. Sergio Camacho, the Secretary-General of the Regional Centre for Latin America and the Caribbean. He will be giving us a presentation entitled "Status Report on the Operation of the Regional Centre for Space Science and Technology Education for Latin America and the Caribbean". Sergio, you have the floor.

Mr. S. CAMACHO LARA (Mexico) *(interpretation from Spanish)*: I thank you very much Chairman. I would like to say that this is the first time that I am speaking on behalf of the Regional Centre for Space Science and Technology Education for Latin America and the Caribbean, CRECTEALC, so I would like to say straight away that it is extremely satisfying to have you in the Chair. The Centre that I am representing and I, myself, are ready to participate in any effort, any endeavour that you task us with in our region.

I am not going to be giving you a historical overview because everyone knows the background of the establishment of these Regional Centres. As we all know, this was set up following an initiative of the Office for Outer Space Affairs, especially the Programme of the Application of Space Technologies of the Office for Outer Space Affairs and this, on the basis of a United Nations General Assembly resolution.

I am the Head of the CRECTEALC and this was set up in 1997 on the basis of an Agreement between the Brazilian and Mexican Governments. There was an Memorandum of Understanding drafted in 2003 and the Centre has two campuses. There is one campus in Brazil and the other in Mexico. The Brazilian campus has moved. It is now located in Santa Maria in the Rio Grande do Sul. That is almost on the boundary of Uruguay and Argentina. And the Mexican campus is in Tonantzintla, that is roughly two and a half hours east of Mexico City.

Now, what is the mission of CRECTEALC? It is to train, to train at as high a level as possible. Various skills and scientific knowledge in general. Along with other Regional Centres, the Centre offers post-graduate programmes, workshops, short-term course, in the following disciplines as we see on the slide, remote sensing, geographic information systems, satellite communications, satellite meteorology, global climate and space and atmospheric sciences.

There are four bullets here and the very last of these, space and atmospheric sciences is just planned

for the time being. We are going to becoming involved in this field as from next year only.

We are using by way of guidelines, the Programmes which have been developed for space technologies programmes specific requirements at local and regional level, for example, the Brazilian campus one is a nine-month course. This is the duration which has been recommended by the Office for Outer Space Affairs and the other campus has 12-month course, three extra months are involved because there is a project that has to be worked on which is locally related.

Now the campuses have evolved. We have somewhat changed the angle of approach of the various education programmes so what you see up here on the screen is not necessarily dealt with in one single programme. These are cross-cutting elements, environment, biological diversity protection, climate change studies, health and education, weather forecasting, disaster management and the development of space science *per se*.

Who are the target beneficiaries? Our audience, as it were? These are professors, researchers, practitioners from both public as well as private institutions and other professionals as well.

The Brazilian campus is INPE, that is the acronym for it. That is supported by the National Institute for Space Research. The campus in Mexico is supported by the INAOE, which is the National Institute of Astrophysics, Optics and Electronics. The campuses are also supported by the Ministries of Foreign Affairs of both countries which comprise the Board of Administration of the Regional Centre.

The languages of the educational programmes are Portuguese, Spanish and English. However, when Professors are invited, sometimes there is more emphasis on English when there are workshops and seminars run in other languages other than Portuguese and Spanish.

Since its establishment, the CRECTEALC has conducted the courses that you have on the screen here. We have trained 253 professionals coming from 12 countries. They have got degrees for these courses and these are long courses. More than 80 per cent of the trainees produced by these courses are still working in their areas of specialization but back home in their country. This is a fairly high percentage actually. If you realize that these professionals are mobile, there is considerable mobility always entailed when it comes to the careers of specialists like this, and nonetheless they remain in their countries in their fields of specialty.

We have organized shorter training courses and seminars as well. When I mentioned that we had evolved, this is what I had in mind. The workshops are not just run in order to convey knowledge, to transmit knowledge, they are actually longer term endeavours. On the Brazilian campus, for example, we launched a whole series of workshops on natural disasters. This is a whole series of workshops. So we try to not only conduct such work in these two countries but also in other countries in the region. We, for example, have already signed Memoranda of Understanding with CLIRSEN, with CONAE, with the CONIDA, when it comes to regional institutional endeavours and we also intend to sign Memoranda of Understanding with governments so that they can take in hand the operations of the Centres involved.

As regards this natural disaster series, here are some of the topics dealt with. This gives you an overview of what work was handled in 2008. And the figures presented are cumulative statistics. So what I am presenting to you is not all of the activities but rather the main thrusts of action where we have involvement. Here you see the evolution that I have referred to you especially in this natural disaster series you see this.

As I have already indicated to you, we have launched activities in other countries in the region. These are research activities.

And thirdly, there is more interaction amongst the various international institutions.

This is the case when it comes to space research solutions for natural disasters and emergency responses. This is the third bullet that we have here. So you see when I referred to cooperation and collaboration with international institutions, that is where you have them, the UNSPIDER, the Remote Sensing Group, the CEOS as well, and the WGEdu as well, which is yet another Working Group which is doing work on related issues.

The CEOS comprise all of the space agencies working on this issue. The point being made is that we seek to strengthen the links that we have, the relationships which are extremely productive in this area.

We also are involved in GNSS activities in our Centre. This is part and parcel of the activities which have been launched quite a while ago and this in

the context of a campaign that we launched seeking to make our Centre, our Regional Training Centre for our whole region in cooperation with the international facility active in this area.

We started working with Galileo to become an information portal and we sought also go further and indeed to try to become a portal for the ICG. I am trying to give you some of the prospects for development here because this has been going on for quite a while ago and these are recent activity developments.

As concerns future activities now. In 2009, we are going to be organizing a meeting on Galileo Networking for Industry. That is scheduled for Brazil 2009. And there is another Workshop to be set up on GNSS Capabilities and their research and educational applications so public and private applications are being addressed here.

We participate in the Office for Outer Space Affairs efforts and one of our experts we have actually seconded to the Asia-Pacific area. We asked to be invited, they accepted and followed up on this and we were invited to a training course organized in India which was one month long.

Then there was also participation on the part of some of our colleagues in a Workshop in Colombia. And this year, the Director of the Regional Centre based in Morocco is going to be participating in a course very similar to that which was held in India. This is also going to be a month long course. And all of this indeed is part and parcel of efforts to have a joint programme with the Office for Outer Space Affairs.

Last year we had made an official proposal to the ICG that our Centre become an information centre for them, the ICG, for our region, Latin America and the Caribbean, and we detailed and specified our offer, our proposal, our offer being regional reach, educational programmes and all space disciplines. We support the development of educational material in Portuguese and Spanish and we would also support the development of a policy to create critical mass in the region. In other words, we would be placing ourselves in the exponential growth curve of the system.

We participate in the activities of the International Committee in one of its Working Groups as well as on the Internet site of our site. We are presenting everything that is being done by the ICG.

In the context of the outreach activities, we also participate in the development of the regional policies. The contexts in our area is a fairly specific one. There are six to eight (68?) countries which have an institution which is very similar to that of the National Committees on Space Exploration, but these are fledgling institutions. They are jus coming into being and what we want to make sure happens is that all of these entities are harmonized so that there is a harmonization of these policies which are emerging. Some of them have not emerged yet. So it is necessary to guide them and to harmonize them as they emerge. We believe that it is the right time to do this. It is important to keep in contact with Brazil such as Brazil and Mexico. It is a matter of exchanging information as to the sort of policies that exist, what sort of legislation exist, and between Brazil and Argentina, for example, and how these policies, which are going to be evolving, can become aligned on to the international regime which is in place. This is a very important part of international cooperation, if I may say so.

Next year, we envisage conducting the nine 12-month courses that I have already referred to. We are planning on placing stress on the ICG Training Centre.

The other change that we are implementing because, as I have said, we are evolving, the model of our work is evolving. We are working on the basis of an Office for Outer Space Affairs model and this can bring us into involvement with projects with research and development elements. But the complementary model we are drifting towards is that the research and development projects themselves can lead to education capacity-building. Among some of these projects, you would have the following, *inter alia*, infra-sound and gravitational waves in the mesopause, for example. This, if it does take place, would be handled within a network of 20 Centres involved in this. However, we do not have these Centres for the time being in Latin America and the Caribbean. This is an issue which is of concern to us. We believe that this a lacuna here. There is a gap here that needs to be filled and that we could help fill it.

There is another topic which is nano-satellites constellation which could be used for humanitarian and climate change applications. These would be communication nano-satellites and they would have worldwide coverage including rural areas where infrastructure is lacking. And this sort of constellation could also be used to receive signals for measurement instruments which are properly placed, land-based sensors which could have their data transferred to research centres.

And the third topic and thrust of effort is development of a database of existing human resources and diverse capacities in space science and technology. This is a project which was launched on the campus in Mexico and we hope that this will result in a prototype that would be subsequently refined and could be expanded in its coverage on the basis of the Brazilian campus and that possibly could produce a system that could be adopted by the entire region. And this would also, of course, take into due consideration the capacities of industry and would be made available to the public at large so that any person who would be interested anywhere in the world could go into the Internet and see what sort of capacities, human resources are out there and can usefully be contacted.

I am now going to be concluding my presentation. I will be going to close and thanking you for your attention ladies and gentlemen.

The CHAIRMAN *(interpretation from Spanish)*: Sergio, thank you ever so much for that presentation. And before I give the floor to the Colombian delegation, I would like to congratulate you for your desire to cooperate with the Chairman. Latin America and the Caribbean is a region which is certainly very lucky to have you because they can tap into your vast pool of knowledge. When you came, this certainly marked a new beginning in the handling of these programmes with the help of Brazil and certainly I am sure that you have already left your personal mark on this.

I would like to refer to two things in particular. The Mexican Seminar that is going to be scheduled. There are six States having developed space technologies and I think it is important to see where the whole region's policies are headed. As for the nano-satellites project, that is certainly very important. I believe that that is something which is going to be accepted regionally. I believe that this presents a *sine quo non(?)* prerequisites for the development of regional competence.

Once again, thank you very much.

Colombia, you have the floor Sir, to be followed by Chile. Colombia first? That is a question. You said that it was Colombia, I believe, so I am taking the floor.

Mr. J. H. OJEDA BUENO (Colombia) *(interpretation from Spanish)*: Thank you very much Chairman. Thank you to Sergio for a very edifying presentation indeed. We certainly feel as though we are becoming increasingly involved in the region and we certainly hope to be involved in this work most practically. I have already referred to this in the Legal Subcommittee, the strengthening of capacity and I really do believe that it is necessary to train legal experts and specialists not just staff who are qualified in research and development and the scientific and technical angle. We have been very impressed by what was described by Morocco when they described what is being done in the Arab region and I would like to say that this is certainly something which should be taken as a model for emulation by the Latin American and Caribbean area. Thank you very much.

The CHAIRMAN *(interpretation from Spanish)*: Thank you. I would like to thank Colombia and I now give the floor to the Ambassador of Chile, if the interpreters can allow me that. Thank you very much.

Mr. R. GONZÁLEZ ANINAT (Chile) *(interpretation from Spanish)*: Thank you very much. I also hope that I have the blessing of the interpreters because that is of fundamental importance and we are very well serviced by this excellent team of interpreters.

I would like to congratulate Mr. Camacho for all of the activities that have been engaged upon the very, very important, we are running very late so I am just going to make two comments. The Chilean Space Agency, which is a civilian agency, is going to be presenting a request to be taken on board in the Board of Directors and we hope to get a positive reaction from our friend, Sergio Camacho, so that we can also participate in this very important Organization.

I certainly hope that the goals that we are seeking to address here are joint goals and we certainly hope that Mexico will be where the Sixth Conference of the Americas be held. Thank you.

Mr. A. TENÓRIO MOURÃO (Brazil) *\(interpretation from Spanish)*: Thank you very much. I am going to be even more rapid even from the preceding speakers. I wanted just to thank Mr. Camacho for his excellent presentation and add that we are particularly satisfied by the work that is being done by Mr. Camacho. His experience is particularly useful for us. Indeed, I believe that he has referred here to the most important aspects of the activities in question. He has looked into the future and what activities can be undertaken and we would like to have the CRECTEALC be more closely advancing hand in hand with the United Nations system.

The CHAIRMAN *(interpretation from Spanish)*: Thank you very much for this comment of yours Brazil.

We have now concluded our work for this morning. We are going to be resuming at 3.00 p.m. when we are going to be taking up item 5 of the agenda, that is Ways and Means of Maintaining Outer Space for Peaceful Purposes, item 6, Implementation of UNISPACE III, item 7, Report of the Scientific and Technical Subcommittee on its Forty-Sixth Session, and we are also going to be broaching item 8, which is the Report of the Legal Subcommittee on its Forty-Eighth Session.

We are also this afternoon going to be hearing five technical presentations. The first of them will be from ESA which is going to be presenting their intentions and plans with regard to enhancement and awareness. Then we will talk about NEOS. Then we will have an ITU presentation. That is going to be a presentation on the efficient use of spectra and orbital resources. And the third presentation will be given to us by a representative of the Space Generation Advisory Council, that is going to be entitled "Space Generation at a Glance: 10-Year Evaluation".

Since this morning, two statements have not been made. Mr. Joseph Akinyede of Nigeria is also going to be speaking this afternoon. He is the African Regional Centre for Space Science and Technology Director. So he will be speaking to us in English presenting the activities of his Centre.

The other presentation which has not been given to us this morning will also be transferred to this afternoon and that Ms. Zhou You on "Constellations and Small Satellites for Environment and for Disaster Monitoring".

On this note, I would like to conclude this morning's session and let us be back in this room at 3.00 p.m.

The meeting adjourned at 1.05 p.m.