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Committee on the Peaceful Uses of Outer Space

Unedited transcript

584th Meeting
Thursday, 12 June 2008, 10 a.m.
Vienna

Chairman: Mr. Ciro Arévalo-Yepes (Colombia)

The meeting was called to order at 10.06 a.m.

The CHAIRMAN *(interpretation from Spanish)*: Good morning distinguished delegates, I now declare open the 584th meeting of the Committee on the Peaceful Uses of Outer Space.

This morning we will continue our consideration of agenda items 5, General Exchange of Views, 6, Ways and Means of Maintaining Outer Space for Peaceful Purposes, and 7, Implementation of the Recommendations of UNISPACE III.

Following the plenary, with a technical presentation by Mrs. Shana Dale, a NASA Deputy Administrator entitled "NASA: The First 50 Years and Future Horizons".

I would kindly urge delegates who intend to make technical presentations to submit to our Conference Officers at least one day in advance so they can test them and upload them on to a conference computer.

I would also like to bring to the attention of delegates another application for permanent observer status of the Committee. In this case it is being submitted by the Prince Sultan Bin Abdulaziz International Price for Water. The application will be distributed as Conference Paper No. 8.

The Committee will decide on all of these applications under agenda item 14, Other Matters, when we reach that point of the agenda.

General exchange of views (agenda item 5)

Now distinguished delegates, I would now like to continue our consideration of agenda item 5, General Exchange of Views.

The first speaker on my list is the distinguished representative of Argentina, Eugenio Maria Curia, speaking on behalf of GRULAC.

Mr. E. M. CURIA (Argentina) *(interpretation from Spanish)*: Thank you very much Chairman. First of all, I will be speaking as GRULAC and then as Argentina.

Now for GRULAC, it is an honour to see you chairing this Committee. It is a great satisfaction to see you with gavel in hand, not only as a legal expert and as a specialist in space themes, as you have been, but also for the reason that this honours the sobriety and fairness which you have always shown. We are convinced that under your leadership the work of this session will lead to concrete achievements on behalf of the objectives we have before us. Please be assured of our full support in GRULAC and we wish you all success in your endeavours.

Now, that concludes my remarks as Chairman of GRULAC and I now put on my hat as representative of Argentina.

Again, let me assure, as I said before as GRULAC, of our full support in your work.

The Argentine delegation would like to also congratulate Madam Mazlan Othman for her designation of Director of the Office for Outer Space Affairs. It is a great pleasure to see Dr. Othman again

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and in this position she has shown great professionalism and dedication. We have no doubt that in this new period, she will be very successful in carrying out the intensive work of the Office on with the excellent collaborators that she can count on there. Please be assured of the fact that our delegation is at your full disposal.

Chairman, Argentina, through its National Committee for Space Activities, CONAE, has continued to implement the National Space Plan, and under this we have done the following.

First of all, made progress in developing two SAOCOM satellites that will be carrying a SAR in the L-Band. This new objective is to identify moisture in the pampas wetlands, and with the part of the SIESKI(?), that is the Italian-Argentinian system of satellites for emergency management.

I should point out that Belgium and Brazil are also partners in SAOCOM.

Secondly, under our National Space Plan, we have made progress as well in SAC-D Aquarius, a joint mission with NASA whose main objective is to identify ocean surface salinity, participation by Italy, France, Canada and Brazil is also evident here.

The launching is scheduled for May 2010 as part of the Bicentennial Celebrations of our Government of the Argentine Republic.

Also under our Space Plan, we have begun the design and construction phase of the SAR-E mission. This is a satellite technology mission. The idea here is to carry out experiments and testing in space for innovative solutions for future satellite missions by Argentina.

Likewise, following a decision by the Presidents of Argentina and Brazil, we have begun preliminary studies for a joint satellite mission entitled “SABIA-MAR”, whose main objective is sea studies and coastal studies for both countries.

Also under our plan the Mario Gulich Space Studies Institute has continued its training activities, both Argentina and Italy are working together here so that this become an Italian-Argentinian Centre of Excellence for the benefit of all of the countries of our region.

As part of our policy, a use by the peoples of Argentina of space data, we have begun to develop our programme II-MP. The idea is to give education to two million children and young people to be able to use the space data in their daily activities. Three years of pilot studies have already been concluded in schools in Argentina and we are currently in the process of drawing up the complete project which should be concluded by 2015.

Concerning access to space, our country has continued its tasks in the field of liquid propulsion, having had successful tests both in test banks and in flight under what we call a Tromidor(?) Project of small thrust engines.

Chairman, the Argentine Republic is part of a region which is highly vulnerable to natural disasters and which has had to deal with different natural disasters with irreparable damage and human lives and property. This is why from the very start we have been a strong support of SPIDER. We believe it is a very important contribution in preventing and mitigating natural disasters.

Our country, through its National Space Activities Committee, will provide available space information through its Cordoba Terrestrial Station, as well as that from other Argentine satellites. We will organize regional courses, all of which will be done on behalf of the SPIDER Programme.

We are also ready to put all of our experience at the service of SPIDER in drawing up an international map of space and natural disasters.

Chairman, the use of space tools for socio-economic development in our region is one of the main objectives of our Space Plan. This is why in November 2007, in Mendosa, Argentina, our Agency, along with the Office for Outer Space Affairs from the United Nations and the ESA from Europe, and with the support of the Swiss Government, held a Seminar on “Sustainable Development in Mountains”, for which the practical idea here was used in the Andes Range. This Seminar we had over 60 experts from around the world, and particular form our region, meeting with representatives of government institutions, academics, as well as the private sector involved in programmes of the application of space technology to problems of mountainous areas, in particular the Andean region. We were also able to draw up a regional project. In fact, we set up a Working Group called Satellite Data Working Group for Sustainable Development of the Andes, also known as ANDES-SAT, and this produced a regional project to be centred on three main areas, hydrology, agriculture and mineral resources. The aim of the project is to describe and to monitor to space technology in the Andean region in order to reduce the

uncertainties, meteorology and water resources, to identify the amount of mineral resources and to see the environmental impact of its exploitation as well as optimize agricultural practices.

Chairman, working together to find solutions to the problems faced by the Andean region using space technology is a clear evidence of the huge possibilities that we have with this tool. We have no doubt that growing interaction here will help lay the foundation for a regional space agency. Thank you very much Mr. Chairman.

The CHAIRMAN *(interpretation from Spanish)*: I would like to thank you for the very kind words on behalf of GRULAC and as the representative of Argentina, kind words and thank you for those. I am not going to comment on your statement but your last sentence I thought was a brilliant idea which we have supported for a long time, the idea of thinking about a Latin American space agency. Thank you very much Excellency.

Now it is my pleasure to give the floor to the Ambassador of Spain, José Luis Roselló-Serra.

Mr. J. L. ROSELLÓ-SERRA (Spain) *(interpretation from Spanish)*: Thank you very much Chair. Sir, please allow me to commend you, along with the other members of the Bureau, for your election to the chair of this fifty-first session of this entity. We assure you of our full cooperation during your work. Your long and active experience as one of the delegates of this Committee gives us ample reason to expect the full success in carrying out the tasks entrusted to you.

We would also like to express our gratitude for the work carried out by Dr. Mazlan Othman at the Head of the Office for Outer Space Affairs, as well as to her entire staff for the very dedicated work they have carried out, as well as Mr. Camacho for his past work. In fact, our congratulations to the entire Office for Outer Space Affairs team whose work has always been excellent in preparing these sessions of this Committee.

Chairman, in this past half century of space activity, we have seen exponential growth of space activities to contribute to the wellbeing and development of our societies. Outer space, which is being explored and utilized already very intensely by mankind, might have time seemed infinite and endless in its endeavour. Nevertheless, it has become more and more clear that, in fact, outer space is a natural resource which is limited and extremely vulnerable and which we must share and protect. Now, in order to do this, forty years ago, this Committee, had a great vision of establishing a legal framework based on the recognition of the right to peaceful uses of outer space for all mankind, and on this principle, and since its foundation, this Committee has come up with a series of solutions to allow for the competitive use of outer space and to overcome problems that stem from its over-exploitation, such as the congestion of specific orbits or proliferation of space debris. With this, the Committee has made a decisive contribution to having mankind benefit from the endless benefits from the use of space and conditions of equality, fairness, freedom and security for all.

In particular, this delegation would like to highlight the role that COPUOS has played as a catalyst for initiatives in the field of international cooperation in that promoting protection of the space environment and for the rational and sustainable use of its applications in the economic, social and cultural fields.

Among those recent initiatives, we should point out the United Nations undertaking that is SPIDER, with the natural disasters and emergencies, and whose implementation in Spain has been very well received. And a distinguished example of this kind of cooperation, like SPIDER, stemming from the initiative of the Working Party and recommendations of UNISPACE III is the CEOS initiatives of observation which Spain recently has joined and we are making a contribution to the implementation of the Working Plan for GEOS.

Chairman, my delegation is very pleased to see that during the past session, the work was quite fruitful for COPUOS. We were able to draw up two substantive documents, one on mitigation of space debris, as well as the General Assembly resolution on a register of spacecraft. Both of these were the fruit of a very broad-ranging process of reflections, participation of experts in the space community and have helped us resolve very complex issues while at the same time maintaining our principle of consensus and decision-making.

We believe that this working method, which is being used currently to draw up a framework for the security of nuclear energy sources in space, can be used by the Committee in dealing with other new emerging topics and in order to give them a universal application.

Now, among the contributions that are being undertaken for future activities of COPUOS, and in particular the working document presented a year ago

by the Chairman, we see very inspiring ideas on new topics that could be in the future dealt with by this Committee.

We see, with a good deal of satisfaction, the agreement to include in our Legal Subcommittee, a new topic on general exchange of information on national legislation relative to the exploration and utilization of outer space. During the current commercialization phase, as well as the privatization and utilization of space activities, we see that it is becoming more and more necessary to share experience in our legislative fields, which are of growing importance in organizing these kinds of activities.

Mr. Chairman, also I would like to take this opportunity to mention some of the most recent developments in Spain, at least those which have taken place since the last session.

The Centre for the Development of Industrial Technology, CDTI, coordinating our Earth Observation Plan, which consists of, in fact, a high-resolution optical satellite called INJEÑO(?) and another with radar technology called PATH(?). This system allows us to receive images and to be used in areas such as security, territorial development, management of natural resources and prevention and response to natural disasters. The European Space Agency is fully a part of the implementation of this programme ensuring its technical coherency and the future integration of the Spanish system with the European Programme called GMES.

Now, INTER(?), a national aerospace institute, is carrying out other activities in the field of space applications and NANO(?) technology up to electronics and magnetism and at development of vehicles in orbit that can carry payloads of diverse types. Following the launch of NANOSAT-1 in 2005, we will soon be launching NANASAT-1B into orbit. For next year, we have scheduled a launching of UPDOS(?), a PICO(?) satellite in order to validate technology in orbit. The Agency also participates in the METNET(?) Precursor mission and this is a part of the Mars Environmental Instrumentation for Ground and Atmosphere Project, whose first vehicle will be launched in the available window in 2009.

Now in this mission, INTER(?) is working with the Finnish Meteorological Institute, the Russian Academy of Sciences and the Babakin(?) Centre for Science and Research.

To conclude, Mr. Chairman, I would like to highlight the importance that international cooperation in the field of exploration and the utilization of space has for Spain, as you can see in the projects that I have just referred to. In this regard, Spain, through its CDTI, has signed a series of general cooperation agreements with different space agencies, such as RASCOSMOS(?), NASA, the CNES and the CSA, while we have specific agreements for cooperation on concrete projects. Likewise, Spain intends to further develop its cooperation with these space agencies as well to subscribe to other agreements with agencies from other countries in order to develop joint projects within the field of space activities.

To conclude, let me reiterate our full cooperation with you, on behalf of my delegation, during this session and we hope that we will achieve full success here. Thank you very much Mr. Chairman.

The CHAIRMAN *(interpretation from Spanish)*: Thank you very much the distinguished delegate from Spain for those kind words, as well as the words you directed to me to the Secretariat and to Dr. Othman. Thank you very much.

Now my pleasure to give the floor to the Ambassador, Helmut Boeck, from Austria. You have the floor Sir.

Mr. H. BOECK (Austria) *(interpretation from Spanish)*: Chairman, please allow me to express the full satisfaction of the Austrian delegation seeing you presiding the work of this session, the fifty-first in number. We fully believe that your thorough knowledge and long experience in space activities will be an essential and significant part of the progress and strengthening of international cooperation during this session. Hence, my delegation is pleased to offer to you and the other members of the Office an unconditional support in achieving these goals, but would also like to express our deepest thanks to the Director of the Office for Outer Space Affairs, Dr. Mazlan Othman, and her team for the dedication and professionalism in managing the Office and preparing this meeting.

(Continued in English) Let me also use this opportunity to convey our sincere condolences to the people affected and the Governments of Myanmar and the Peoples Republic of China for the recent disasters which have struck those countries.

Mr. Chairman, strengthening the link between space goals and international development goals has

always been a high priority for Austria, particularly in the difficult process of adapting to the effects of climate change and coping with natural disasters and extreme weather events, space-based technologies have tremendous potential for early warning as well as the effective relief and rehabilitation efforts. The new United Nations SPIDER Programme will, in our view, make an important contribution to make such vital information more accessible, in particular for developing countries.

Austria is particularly pleased that considerable progress has been made in the implementation of the Work Plan during the year 2007, as shown by the Progress Report submitted by the Office during our last session of the Scientific and Technical Subcommittee this February.

We would like to thank the former and current Director of the Office for Outer Space Affairs, as well as the Programme Coordinator of UNSPIDER for the tireless efforts in implementing this programme according to the ambitious programme from 2007 to 2009 as endorsed by General Assembly resolution 62/217.

As one of the main contributors to UNSPIDER, Austria looks forward for the programme to succeed in fulfilling its mission statement, mainly to provide universal access to all countries and all relevant international and regional organizations for all types of space-based information and services relevant to disaster management.

By consistently implementing the Work Plan, UNSPIDER should contribute to an increasing reduction in loss of lives and property related to disasters. Although developing countries will mostly benefit from UNSPIDER, it also aims at providing access to useful space-based information to the disaster management community in many developed countries.

Austria would, therefore, encourage all member States that have not made any commitment so far to seek ways of supporting UNSPIDER. Its Work Plan is indeed ambitious and the programme will need extra budgetary support in order to deliver on its promises.

As pointed out before, the recent disasters in Myanmar and China have again clearly demonstrated how destructive natural disasters can be. UNSPIDER has to ensure that access to space-based information is available throughout the disaster cycle and it can best perform this task if the necessary resources are being made available.

In this context, I am pleased to tell you that this year, pending budgetary approval, Austria intends to provide a further financial contribution for UNSPIDER in the amount of up to 150,000 Euros.

Austria also hosted the United Nations International UNSPIDER Expert Meeting building upon the network of regional support offices, held in Salzburg in February of this year. The discussions during this seminar focused on ways and means of efficiently coordinating and interacting with the network of regional support offices, reviewing how they will contribute to the UNSPIDER activities contained in the Plan of Work for the biennium 2008-2009.

In addition to the support mentioned earlier, Austria provided a substantial cash contribution this year already of around US$180,000 to the UNSPIDER Programme in order to organize two workshops, one for the Caribbean, to be held in Barbados from 8-11 July, and one with a special focus on the Pacific Islands, to be held from 16-19 September 2008 in Suva, Fiji.

Austria believes, and hopes, that the access to and further integration of space-based information, international disaster management strategy will help those Island States improve their preparedness and response to disasters.

Another aspect of the Austrian engagement in the field of space applications for sustainable development is a continuing series of symposia in Graz. The themes of these yearly symposia are linked to those of the Commission on Sustainable Development, CSD, and the outcomes are reported to and fed into the CSD. This year's Symposium, which will take place from 9-11 September, will be dedicated to the topic "Space Tools and Solutions for Monitoring the Atmosphere and Land Cover", in support of the Plan of Implementation of the World Summit on Sustainable Development.

In particular in the light of the recent findings of the Intergovernmental Panel on Climate Change, the participants will discuss the latest space technologies and solutions for the observation of the Earth's atmosphere, in particular for the research of climate change, air quality, ozone depletion and ultra-voilet monitoring, as well as tools for the management of renewable energy sources.

This symposium, which has become a valuable platform for exchange between developing

and developed countries, is hosted and co-sponsored by the Government of Austria, in particular the Federal Ministry for European and International Affairs and the Federal Ministry for Transport, Innovation and Technology, and our partner is the State of Styria and the City of Graz, as well as the European Space Agency.

This year we will celebrate the fifteenth anniversary of this series of symposia, organized through the United Nations Programme on Space Applications, in cooperation with those co-sponsors and naturally our friends in Graz Unamium(?) Research and in particular Professor Kobelka(?), which has been taking place actually since 1994.

Mr. Chairman, in July 2007, a fifth call for proposals of the so-called Austrian Space Programme took place. The Austrian Space Programme is an initiative of the Austrian Federal Ministry for Transport, Innovation and Technology and is managed by the Aeronautics and Space Agency of the Austrian Research Promotion Agency. This Austrian Space Programme specifically aims at positioning Austrian players on the commercial market, supporting specialization and networking, creating technological content and improving scientific excellence.

The funds available for this fifth call for proposals are around 8.7 million Euros.

A sixth call of proposal for this Programme took place in 2008. The total budget for this ASAP has in getting increased an amount to 9.3 million Euros. One key topic of this year's call for proposals is the programme element GMES initiative in Austria and a special budget line has been allocated to this GMES initiative in Austria.

Let me also mention that at the EU-African Summit in Lisbon in December 2007, a Declaration was signed to extend GMES activities in Africa and a main objective is the exchange of views with African users and decision-makers and to set the basis for a long-term cooperation with Africa.

In the frame of the sixth call of proposals of ASAP, applicants are also encouraged to develop project proposals that refer to UNSPIDER activities.

Another area I would like to mention as to well established summer school in Alpath(?). The last summer school in 2007 on astrobiology was held in July last year and attempted to reveal the origin, evolution and distribution of life on Earth and throughout the Universe in the context of cosmic evolution. The final Bill was building the foundation for the construction and testing of meaningful axioms to support a theory of life. To reach this goal, a multidisciplinary approach was required involving very disciplines like astronomy, planetary research, geology, palaeontology, chemistry and biology.

What happened during this summer school was that it addressed innovative astrobiology mission concepts from the areas of astrobiology and Earth orbit, astrobiology in the solar system and astrobiology beyond the solar system.

The next in this year's summer school Alpath(?) will take place form 22-31 July. The topic chosen for this year "Sample Return from the Moon, Asteroids and Comets" covers the scientific arguments for acquiring material for analysis in Earth-based laboratories, as well as the technical challenge of the space vehicles and instruments that will carry out the sample return missions.

Mr. Chairman, the development of the first Austrian satellite, TAGSAT-1(?) PRIDE AUSTRIA, is progressing well. Its scientific mission is the investigation of bright luminous stars. At the completion of the design and documentation phase, component level tests and first integration activities have started recently. The controlled Ground Station for the spacecraft has been set up recently in Graz. A flight readiness review is planned for spring 2009 and a suitable launch opportunity has been identified from the mid of next year.

This satellite project is carried out by Graz University of Technology, in close cooperation with the Spaceflight Laboratory of the University of Toronto, the University of Vienna, and the Vienna University of Technology.

An important goal of this project, founded by the Austrian Science Promotion Agency, is the establishment of a low-cost satellite platform for future scientific and technological missions.

The launch of this satellite will not only bring Austria into a new area in a technical respect but it will also constitute the factual basis for the development for national space legislation to further govern the exploration and use of outer space.

We, therefore, particularly welcome the Working Group on National Space Law, which will be established next year and are grateful for the support of member States for the election of Irmgard Marboe as Chairperson of this Group.

Within the National Security Research Programme, KIRAS, industry and research organizations are developing a novel airborne remote sensing and communications platform for disaster management. A first prototype was successfully demonstrated during a large fire fighting and flood relief exercise in Lower Austria, clearly demonstrating the benefit of space-based tools.

Let me use this opportunity to thank again the staff of the United Nations Office for Outer Space Affairs for their tireless efforts in preserving and promoting the principles that this Committee has developed in the service of the peaceful use of outer space.

I can assure the Committee, as well as the staff of the Office for Outer Space Affairs, that Austria will continue to be a strong and dedicated supporter of the Office and the important work of the Committee in the service of peace and development.

Finally, Mr. Chairman, as has been the tradition in the past, I have the pleasure to announce that the Secretary-General for Foreign Affairs, Ambassador Kohler, and the Austrian delegation, would like to invite Heads of Delegations and members of delegations to a Viennese Heurigen evening that is planned for Tuesday, 17 June of next week. Please check the invitation that will be distributed for further details and confirm your attendance with the Austrian delegation.

On this occasion, we look forward to another fruitful and more informal exchange of opinions that will assist COPUOS to chart the course to its ever closer cooperation of humankind in outer space.

Muchas grazias Señor Presidente.

The CHAIRMAN *(interpretation from German)*: I would like to thank you for your statement. *(Continued in Spanish)* Thank you very much for the kind words that you have extended to my address and for having spoken in Spanish and for having extended greetings to the Secretariat. It will be a pleasure to go to this Heurigen. This is an Austrian tradition that we always enjoy.

I would now like to go on to the next speaker on my list and it is the representative of Nigeria, Mr.

Mr. J. O. AKINYEDE (Nigeria): Thank you Mr. Chairman. The Nigerian delegation wishes to acknowledge the efforts of the past Bureau and that the distinguished chairmanship of Mr. Brachet of France, the excellent manner in which they have steered the activities of the Committee for the past three years.

We also wish to congratulate you, Mr. Chairman, and members of the new Bureau, on your elections and believe that the Committee under your able leadership will continue the collective approach to advance international cooperation in the peaceful uses of outer space and its role in shaping international standards for peace, space activities for the benefit of all countries.

Similarly, we wish to congratulate the Director, Ms. Mazlan Othman, on her new appointment and wish her well as she continues to spearhead the activities of the Office for Outer Space Affairs in the best tradition with new vigour.

Mr. Chairman, as we reflect on our individual and collective achievements and challenges in the past one year, let me assure you of my delegation's cooperation and active participation in all the meetings of this session.

Mr. Chairman, at its sixty-first session in 2007, the United Nations General Assembly adopted two major resolutions relating to the activities of COPUOS, particularly activities that will enhance economic growth and sustainable development of all countries through international cooperation, including mitigation of the consequences of all kinds of disasters.

We are all witnesses to the recent devastating cyclone in Myanmar and the catastrophic earthquake in China that claimed thousands of lives and left destruction and devastation in its path. My delegation wishes to seize this opportunity to offer condolences to these countries for the loss of lives and properties resulting from these acts of nature.

The Committee may wish to note that the Disaster Monitoring Constellation was prompt in making its space assets available for the coverage of disaster areas and for aiding the management of the disasters and emergency responses. However, these disasters called for the redoubling of our efforts and the use and deployment of our space assets for rapid responses for such natural and related disasters, especially through the continued implementation as strengthening of the United Nations Platform for Space-Based Information for Disaster Management and Emergency Response, UNSPIDER.

To promote the UNSPIDER activities, in line with its 2007-20008 programmes, the National Space

Research and Development Agency in Nigeria, in collaboration with the National Emergency Management Agency organized a Stakeholders Workshop on the Implementation of the UNSPIDER in the West Africa Sub-region. The Workshop was used as a forum to sensitize the countries of the region on the usefulness and benefits of the UNSPIDER in addressing the disaster reduction and management in the region and in Africa as a whole.

The Workshop noted that the establishment of the UNSPIDER Programme, with a portal in Nigeria, will assist countries in the Sub-region to have access to and be in a position to use space-based technologies for disaster reduction and emergency responses. Nigeria took this initiative as part of its earlier pledge to support the UNSPIDER Programme as Africa's Sub-regional hope(?). We hope to finalize the arrangement with the Office for Outer Space Affairs for the take-over of the Sub-regional Office in Abuja, Nigeria, very soon.

Nigeria has also finalized arrangements to facilitate the operations of the International Shelter in the West Africa sub-region.

We wish to acknowledge the support of the United Nations Office for Outer Space Affairs for providing some forms of support for the participants of this Workshop for many African countries.

Mr. Chairman, our delegation also wishes to draw attention to the current events in the global scene. The United Nations and all countries of the world acknowledge a newly consent about food security exacerbated by the sudden surge in food prices. We are now in the world faced daily with disasters of different types of emergencies. We have hunger and poverty still affects over two-thirds of the population of developing countries. We have many countries face economic and social hardships and unable to follow through the United Nations Millennium Development Goals.

Nigeria, through NASDA, has been using space-based technologies to provide the relevant information by addressing its food security problems. Nigeria's intervention in this regard include the implementation of pilot projects on cassava yield prediction and electronic agriculture to provide farmers with relevant information including space-derived, especially information to boost agricultural production and the development of _____(?) land, information systems to boost wetland rice production in Nigeria, deploys space technologies for socio-economic growth and sustainable development especially in developing countries and only be realized if these countries have the capacity to assess and analyze these technologies. It is in this regard that developed member countries are encouraged more than ever before to assist developing countries in their quest to build capacity in the relevant space application techniques.

Member States are also urged to, as endorsed in paragraph 48 of the United Nations resolution 62/217, to contribute to the Trust Fund for the United Nations Programme of Space Applications to enhance the capacity of the Office for Outer Space Affairs to initiate pilot projects in space applications, especially in developing countries, as a direct contribution to the implementation of the recommendations of UNISPACE III.

Nigeria has also embarked on some Nigerian communications satellite-based pilot projects in the areas of tele-medicine and tele-education to bring much needed services and benefits to the people in the rural areas for social and economic development. The tele-medicine project, which was officially launched in February 2008, and the Nigerian Government provided an opportunity for patients who needed diagnosis took information exchanged in real time through the appropriate ICT facility at our Ground Station in Abuja, Nigeria. This involves two university _____(?), six medical centres and a mobile unit linked to each hospital. The project will provide a lead-based assessment for the use of tele-health services such as specialist referrals, remote patient monitoring and medical education in Nigeria.

Another related effort in the tele-education project, in collaboration with the National Open University of Nigeria. The project has a pilot scheme of 13 study centres located across the nation which is teaching administrative health(?) at the National Open University at Cortazi(?), Lagos, in Nigeria. Eight sites of the study centres have been completed and are ready for commissioning by the Nigerian Government. With improved capacity in space application techniques such as this, it is certain that space-based technology is capable of being at the vanguard of assisting countries, especially developing countries, in achieving some of the objectives and benchmarks of the United Nations Millennium Development Goals.

Mr. Chairman, we are glad to report that the development of Nigeria's second _____(?) satellite, NIGERIASAT-2, a 2.5 metre panchromatic, a five metre multispectral special resolution is very much on course. It is planned to be launched in 2009. To ensure continuity of data, NIGERIASAT-2 will also

carry a 32 metre multispectral resolution similar to those of the NIGERIASAT-1. The NIGERIASAT-2 will be launched with a trill modem(?), NIGERISAT-X, with a multispectral 22 metre special resolution payload. This is built solely by NASDA's engineers and scientists.

As part of Nigeria's efforts to ensure satellite data coverage of its territory, NASDA is collaborating with INFOTERRAGLOBA to implement a radar-based satellite development roadmap. The roadmap includes the training programme for NASDA staff in Germany and data precision from TERRASAT-X for the monitoring of all Balkan(?), aerospace and other environmental degradation in Nigeria's coastal areas and the Niger Delta region.

In addition, Nigeria will continue to commit itself to the development, building and launching of the African resource and environmental management satellites, ERM(?). As part of our efforts to realize this vision, Nigeria and other collaborating countries will be signing the relevant documents to work together to achieve the objectives of the ERM(?) initiatives.

Mr. Chairman, access to information has become a powerful tool for much such as economic development, as information thus calls all development _____(?) efforts, the needs in education, for regional health, health services, construction and industry, tourism, environment, maritime and so on. Nigeria has taken further steps in its satellite technology development with the signing of an Agreement with the building of the country's Assembly Integration and Test Centre and the Science Centre in 2007.

The existence of the _____(?) satellite AITNDC(?) will go a long way in realizing the dreams of our nation and aspirations of the Government in the areas of capacity-building and development of human resources in space science and technology.

In the area of training and capacity-building through regional cooperation efforts, Nigeria participated in the Second African Leadership Conference on Space Science and Technological Sustainable Development, held in Pretoria, South Africa, in October 2007. The Conference, with the theme "Building African Partnerships in Space", based on the First African Leadership Conference on Space Science and Technology for Sustainable Development, which was held in Abuja, Nigeria, in November 2005.

The Pretoria Conference emphasized knowledge and skill development through capacity-building, knowledge _____(?), joint participation in mutual and beneficial projects, and bilateral and international cooperation.

The First African Regional Conference of the International Academy of Astronautics, IAA, with the theme "Space for Africa: Path to Knowledge and Development", was co-hosted by Nigeria and IAA in December 2007. The outcome of the Conference was for African countries to embark on initiatives and develop agenda that could address and redress the problems of poverty, food security, protection from _____(?) disasters and affordable health and housing, using space technology.

Similarly, a Conference entitled "The Use of Regionally-Owned Space Infrastructure for Disaster Management in West and North Africa", and co-hosted by Nigeria, ITC, The Netherlands, the United Nations University and the Regional Centre for Training Aerospace of Nigeria, was held in Abuja in October 2007. The objectives of the Conference was to assess the state and availability of regionally-owned space infrastructure for disaster management in the West and North Africa sub-region. The Conference also discussed the state of current and crucial disaster risk facing the regions.

Finally, Mr. Chairman, the Disaster Management Constellation, DMC, and an international partnership consisting of China, Turkey, the United Kingdom, Spain, Algeria and Nigeria, held its eleventh meeting in Nigeria from 22-23 May 2008. This group of countries, in line with its objectives, agreed to continue to combine their efforts including sharing of information, data and imageries among themselves, as well as other countries and international organizations for disaster monitoring and other environmental challenges.

Mr. Chairman, Nigeria is open to all forms of collaboration in space science and technology, capable of advancing the cause of the United Nations quest for the peaceful uses of outer space with the overall objective of socio-economic development of all countries. Thank you for your attention.

The CHAIRMAN *(interpretation from Spanish)*: On my own behalf and on behalf of the Director of the Office for Outer Space Affairs, let me thank you for those kind words. I thank Mr. Akinyede.

Let me give the floor to Mr. Kuznetsov from Ukraine at this time. You have the floor Sir.

Mr. E. KUZNETSOV (Ukraine) *(interpretation from Russian)*: Thank you very much Chairman. Chairman, please accept our sincere congratulations to you and the members of the Bureau for your importance positions at the head of our Committee. We are sure that under your guidance, we are all going to be able to achieve new successes in the work of our Committee.

Chairman, ladies and gentlemen, colleagues, each and every United Nations Outer Space Committee meeting is an event which takes stock of the developments in the global outer space activities having taken place and sets important milestones for future development of outer space science and technology. In implementing the recommendations of the third United Nations Conference, UNISPACE III, Ukrainian researchers and engineers are participating ever more actively in international outer space projects, tapping the experience of other countries for their own development and sharing their experience with other nations.

We believe that this is a very fruitful civilized process and we are going about R&D studies that certainly we must continue to pursue actively in the future.

I would like to inform you Chairman that Ukraine has scored significant progress in forming its legislative _____(?) basis for international activity in outer space and in implementing outer space projects. Over the past period, we have prepared and signed agreements with the space agencies of Algeria, France, Germany as well as the ESA and the USA, and we have just indeed also signed an agreement with Egypt in April.

For the first time, in the European community, with the support of the European Commission, a project called Twinning has gone into operation and this involves the acceleration of the Ukrainian-European cooperation in outer space, CNES, DLR and the Ukrainian National Space Agency are participating in this.

We would like to inform you that on 5 June 2008, the tenth anniversary of the marked of the establishment of the Ukrainian Centre on Outer Space Law. This Centre, in 2006, organized a seminar on outer space activities under the United Nations aegis and 26 countries and international organizations were involved in the work of the seminar. Ukrainian specialists indeed made presentations to various subcommittees and indeed we have taken a part in the cycle of construction of space and space technology projects.

As regards international projects, with Egypt, we have started the operations on EGYPTSAT-1 and a remote sensing spacecraft and a spacecraft control station has been set up accordingly. Together with the Russian and the United States we have indeed finalized the first launch within the Ground Start Project, ZENITH-IIISLB.

We have also started up work together with Brazil establishing the long-reach(?) facility in the Brazilian Alcantara Space Centre. We are going to be engaging with the European launch vehicle VEGA establishment and our engineers and researchers have indeed concluded the establishment of a Ground Correcting Centre for satellite signal reception for satellite signals from the systems Galileo, GPS and GLONASS.

Now I would like to speak about the problem which I have already touched upon in previous sessions and this is the need to consolidate international communities efforts to address the threats facing humanity, and here I am referring to warnings on natural disasters, global warning, scarcity of drinking water, energy resources, cosmic weather, asteroid security and space debris proliferation. We believe that countries should step aside from their national space programmes and address their efforts to responding to these risks and challenges, especially for the interests of developing countries as well as their own.

We suggest that in their Annual Country Reports there be a special section devote to the efforts consecrated to precisely this work which has been accomplished. And we also suggest that a forum comprising the heads of space agencies and organizations should be organized to address the same problems. Indeed, it is necessary to do our utmost to ensure the security of the lives of our planet's inhabitants. Ukraine will be one of the most active participants in this humanitarian mission.

And, Chairman, colleagues, in concluding, I would like to assure you all that Ukraine sincerely intends to participate fully in the development of international cooperation of outer space for the benefit of all mankind. Thank you for your attention.

The CHAIRMAN *(interpretation from Spanish)*: Let me thank Mr. Kuznetsov for his very gracious words to the Chair and the personnel from the Office.

I now give the floor to Rodolfo Navarro from Venezuela. You have the floor.

Mr. R. NAVARRO (Bolivarian Republic of Venezuela) *(interpretation from Spanish)*: Chairman, on behalf of the Bolivarian Republic of Venezuela's delegation, please allow me to express our sincerest congratulations to you on leading the work of this entity. Please be reassured of our full support and cooperation during this session.

We would like to highlight the excellent work of the Secretariat for the organization and distribution of information document to support this session.

I also take this opportunity to express our condolences and solidarity to the peoples of Myanmar and China recently afflicted by natural disasters.

Chairman, the Bolivarian Republic of Venezuela is convinced that space technology and its applications is an essential tool for the development of peoples and during the past two years has been coming up with a series of plans, programmes and programmes in the field of space and the peaceful use of outer space in that the inclusion of social justice within the framework of these pertinent public policies with a clear vision which is both integrationist and of the vanguard in order to give further impulse to the multi-polarity of international society.

And in 2008 we saw the birth of the Bolivarian Agency for Space Activities, ABAE. It is based on a law of September 2007. Now this entity is an autonomous institution, part of the people's power, Ministry for Science and Technology, which amongst its responsibilities to execute public policy in this field. It is seen as a fundamental instrument of validation of political process following the lines of our Magna Carta. The idea is to strengthen the democratic participative society under the rule law which consolidates the values such as free independence, peace, solidarity, common will, territorial integrity, ensuring the right to life education, its own technological development with no discrimination of any kind with the essential vision only towards inclusion of social justice.

It should be pointed out that the President of the Agency, ABAE, Professor Norris Oreuala(?) was designated last May, the Minister of Peoples Power for Science and Technology. Now, on this basis, ABAE assumes, among other tasks, the functions, attributions and activities which, up until the end of 2007, were part of the Venezuelan Space Centre, CEV. This is a new stage of consolidation and grows within the framework of our space efforts. It is also a part of cooperation integration efforts in the Latin American and Caribbean region in the field of space.

Short- and medium-term plans are installing a satellite platform to interconnect telecommunications networks on behalf of our new social economy, use of space technology applications in all fields, as well as ongoing projects that contribute support to decision-making in the fields of energy, agriculture, health, education, environment, planning, territorial control and risk management, feeding national capacities that is formatting human talent as well as the physical infrastructure for this technological potential.

We see it as cross-cutting and this is all part of our public policy of social inclusion. This is why we are determined to meet the national needs of Venezuela and to cease being simple users of technology resources. We want to become creators of our own technological growth. In order to do this, the Agency is working on the basis of the following programmes and projects.

First of all, VENEZSAT-1, the fabrication and launching of the Simon Bolivar satellite. Also Earth observation projects. Satellite technology is applied to social programmes and development of new applications in space technology.

Concerning the first, VENEZSAT-1, this is being carried out on time. That is the main function of the satellite, as well as training of the necessary human resources. We have also been able to make progress on the physical installations in our Terre Puerto(?) and in our Earth stations for monitoring the satellite.

We see it as a key element in this process of VENEZSAT-1 and that is technology transfer and the training of human resources. So during 2007 substantial training for personnel where we had a group of professionals undergoing this kind of training. In 2007, we had a special training programme in the installations sphere where different elements of the Venezuelan Space Programme were studied and dealt with.

In addition, in March 2007, we had a series of national experts who also joined this programme to be trained as operators in the Earth stations for the Simon Bolivar satellites.

Now Earth observation. We have set up our Venezuelan Centre for Remote Sensing, CDPR. Last September, we began free distribution of satellite

images to public entities in order to help them in their decision-making in the fields of energy, agriculture, health, education, environment, planning, territorial control and risk management, among others. We have also been engaged in training appropriate personnel to process these satellite images.

In 2007, we had a first geomatics class graduation, again agriculture and soils, forest resources, ecology, geosciences, water resources, digital photometry, geo-information sciences, geological and hydro meteorological risks, and so on. This is to place in our remote sensing institute in India, the IRES(?), in Raduan(?). It lasted 10 months, 14 professional different ministries were participants. We are now setting up the second round of these courses and we have had nine Venezuelan professionals enrolled.

Also there is a strategic programme for the training of teachers and educators in satellite image processing. This includes the distribution of satellite images, for example, of school buildings and their environments to facilitate the dissemination between members of the teaching staff in their efforts. We ran a pilot programme on the north central coast of the country in this and we will soon be dealing with other regions.

Now we have another project on satellite technology as a part of social programmes. The Simon Bolivar in 200(?) will be an important part of this. We have already been selecting towns with very difficult remote access to be part of a remote and medicine and education programme. We have set up a pilot centre to do just that and we are working on links to the main hospitals in the area and working on the necessary audio-visual and medical equipment. The main crux of this effort, of course, will involve the active participation of educational, health and governmental authorities challenge(?).

This has all been possible thanks to our new policy of South-South cooperation. It is building a network of cooperation and solidarity that promotes the peaceful use of outer space, that promotes and consolidates Latin American and Caribbean integration and there is a universal and invisible guarantee of the human rights, including disarmament, environmental defence and it shows that it is possible to have an egalitarian distribution of the rights of the resources in the field of the peaceful use of outer space. On this basis, the Bolivarian Agency for Space Activities has attended several international meetings dealing with the peaceful use of outer space. It set up a working group, along with ministerial representatives from People Power and Foreign Relations in order to take a look at a _____(?) via international treaties and their ratification that would be necessary to enlist the strategies for these instruments of bilateral and multilateral cooperation in the field of space.

We have already in this past year been working on instruments of bilateral cooperation with Brazil, Russia and France and have made progress in the implementation of programmes of cooperation involving China. Thank you very much.

The CHAIRMAN *(interpretation from Spanish)*: Let me express my thanks to Mr. Navarro and through him our congratulations to Madam Oreula(?) who has worked with us for many years and who has now been designated by the Peoples Power as Minister of Science and Technology. Our congratulations to her and thank you for your kind words to us.

I now give the floor to the representative of Hungary, Elöd Both. You have the floor Mr. Both.

Mr. E. BOTH (Hungary): Thank you very much. Mr. Chairman, firstly let me congratulate you on behalf of the Hungarian delegation on being elected to the Chair of this Committee. We are convinced, that based on your long experience in COPUOS, under your leadership, the session will be able to make progress on the important issues on our agenda.

My delegation also expresses its highest appreciation and warmest congratulations to Mrs. Mazlan Othman on the occasion that she returned to her former position and has again been appointed to the Director of the Office for Outer Space Affairs.

Last but not least, the Hungarian delegation expresses thanks and appreciation to Mr. Sergio Camacho for his long and successful activities in the Office for Outer Space Affairs, especially in the past few years, as the Director of the entity.

Mr. Chairman, distinguished delegates, first of all, my delegation warmly welcomes the two new members of COPUOS, Bolivia and Switzerland. The increasing number of members clearly demonstrates the importance of the Committee.

Last year, we celebrated the fiftieth anniversary of the beginning of the Space Age. My delegation emphasized the catalyzing role of the World Space Week Association and entirely appreciates the work that has been carried out by the Association up to now.

In the framework of the World Space Week, we had several events. The most important ones of these were a nation-wide students contest on space activity, organized by the Hungarian Astronautical Society, for secondary school students.

A public exhibition has also been compiled, focusing mainly on the research of teachers of space activity, as well as on the current applications.

We had some public events on the occasion of the fiftieth anniversary outside the World Space Week.

Let me briefly inform the Committee on some further features of our country's space programme.

Our country's space activities are being coordinated by the Hungarian Space Office, now a unit of the Ministry of Environment and Water after several restructuring.

Our highest priority partner in international cooperation is the European Space Agency. Hungary is a European Cooperating State of the Agency. The implementation of the PAX Agreement cost mostly. There are more than 30 ongoing projects building several successes in different fields of space activity.

Since our participation in the PAX Programme, proved to be so successful, we are preparing now the extension of the soon-expiring Agreement for another five years. The Hungarian Government approved the success extension very recently.

This year Hungary doubled its financial contribution to the Programme. Parallel to this process, last year again also the accession of negotiations with the European Space Agency.

Very recently, a Government-level Agreement on Technology Development Cooperation with India has been signed. A significant part of this Agreement is the cooperation in space-related technologies.

Our scientists and engineers successfully participated in a few international space missions. The most important of these is our participation in the Russian COMPUS-2(?) scientific mission. Hungarian engineers, in cooperation with Russian and Ukrainian colleagues, built an electromagnetic wave detector for the satellite. In the meantime, our scientists continued their participation in ESA _____(?) mission.

In the future, they will also participate in the BEPPE-COLOMBO Mission to planet Mercury and Japanese cooperation.

Last year, we participated in several dosimetric programmes, both in Russian as well in ESA cooperation. Our scientists produced solid radiation detectors for the BIO_____-6(?) Experiment Package, flown in outer space last September onboard the PROTON-M3 bio-satellite.

Our scientists and engineers also produced different types of radiation detectors for the BRETO-6(?) Package and _____(?) types experiment aiming to map the cosmic radiation field inside the International Spaced Station. ISS, those measurements have become increasingly important as baseline data for the astronauts actually health risks estimate.

Finally, I am pleased to inform this Committee that Hungarian university students, mainly of the Technical University of Budapest, are participating in the ESA Coordinative ESA Students Satellite Project. They are partners in preparing two scientific experiments, as well as the power supply sub-system of the satellite, to be launched in 2009 or 2010.

On the margin of this activity, last September, we hosted the first Polish-Hungarian Students Space Conference which had the roots at an earlier COPUOS session. Thank you for your attention. Thank you Mr. Chairman.

The CHAIRMAN *(interpretation from Spanish)*: Thank you very much Mr. Elöd Both from Hungary for your statement and for your kind words.

It is now my special pleasure to give the floor to Carlos Ganem, the President of the Brazilian Space Agency and who is with us today, honouring us with his presence. You have the floor Sir.

Mr. C. GANEM (Brazil): Let me begin by joining other members in congratulating you on your election, to guide our debate in 2008 and 2009. It is a great pleasure to see a fellow Latin American presiding over this Committee, especially someone from a country which has made such an important contribution to the peaceful use of outer space. I am sure that under your able leadership we will attend(?) very meaningful advances in this session.

I extend my congratulations to other members of the Bureau who will assist you on your task.

I wish to express the deepest appreciation of the Brazilian delegation to the work undertaken by Mr. Gérard Brachet with his chairmanship of this Committee which has provided us with important insights on our present and future responsibilities.

Our thanks go also to his collaborators which have performed(?) that that is an exemplary manner.

May I take this opportunity to greet the delegations of Bolivia and Switzerland and say that we are very glad to be able to count on the contribution of their countries in this Committee.

In addition, I greet and thank the Director of the United Nations Office for Outer Space Affairs, Dr. Mazlan Othman, as well as the members of the Office to the preparation of this meeting which we hope will be a successful one.

Mr. Chairman, the Brazilian delegation wishes to offer our condolences to the peoples of Myanmar and China who have recently endured many disasters. Let us hope that this can be an opportunity to us to remind us the importance of advancing the peaceful use of outer space which can often provide countries with additional means to deal with tragedies such as this.

Mr. Chairman, we have come a long way since the first satellite which was launched in 1967. Outer space is becoming increasingly important and accessible in areas such as telecommunications and monitoring agriculture, natural resource management, public health, education, among others. Gladly, Brazil has been enjoying these benefits for many years now. The space applications are particularly useful to a nation with our continent and the nations and our geographical diversity.

For many decades, international cooperation has played a major part in the development of space activities in Brazil. Since the creation of the Brazilian Space Agency in 1994, we have doubled, the equalled to strengthen our partnerships and an example of this is the celebration of framework agreements with Argentina, China, France, India, Peru, Russian, Ukraine and the United States, as well with the European Space Agency which provided the foundations for many successful initiatives in the 1980s(?).

We have also signed implementing arrangements with Chile and Colombia and we are now looking into other cooperation possibilities.

We attach particular importance to the cooperation we undertake within our region. In this context, it is relevant to mention our efforts to promote capacity-building in space-related fields in cooperation with Latin American partners. _____(?) building initiatives are carried out with Mexico to the Regional Centre for Space Science Education for Latin America and the Caribbean.

We have gathered from our international experience that without disbanding(?) many reserves, there is much we can do to increase awareness and interest for our population with regards to outer space. The Brazilian Space Agency has for many years, in cooperation with the Brazilian Astronautical Society, organized the Brazilian Astronomic and Astronautic Olympic Games which aimed at promoting astronomics among students of all ages.

In 2007, we waited(?) with a remarkable amount of 350,000 participants and this year we had 5,000, an increased incredible number for our country.

This shows that space often sparks more interest form people that we would imagine it is up to us to make the best of it.

If today we can reap the benefits of mutually beneficial international cooperation in the peaceful use of outer space, it so because much has been done by the international community in the last five decades and because much has been done by this Committee. It is a very fortunate coincidence that I, just a couple of months after being invested with the President of the Brazilian Space Agency, had the opportunity to address this eminent body. The view has always advocated for the use of outer space is conceivably for peaceful purposes and for the benefit of all mankind. We believe that these principles which are established under the auspices of this Committee are vital for the stability of international relations and the wellbeing of the world population. Bearing this in mind, Brazil has devoted much effort to the promotion of space applications for sustainable development in multilateral forums as well as in bilateral projects. We are pleased to, once again, have the opportunity to develop these issues under the specific agenda items.

With the proper organization and political will, much can be done for space and for sustainable development using already available means. As an example, it is possible to mention the free document of images for the China-Brazil Earth Resources Satellite, a result of a South-South partnership which completes to _____(?) years in 2008.

Mr. Chairman, Brazil is very pleased with the possibility to develop this and other issues in the following days. I can assure you the full cooperation of my delegation in dealing with the tasks that lay before this Committee. Thank you Mr. Chairman.

The CHAIRMAN *(interpretation from Spanish)*: I would like to express my special thanks to Dr. Ganem and let me tell him that the fact that I have been named Chairman and the fact that he attended as Chairman, let me say it is kind of an auspicious sign at the beginning of our work here and _____(?) your presence I hope that we will have full success in this coming year and not just on the level of Latin America but, as you said, for all of COPUOS.

Let us move on to the next speaker. Pearl Williams from Canada, you have the floor Madam

Ms. P. WILLIAMS (Canada): Mr. Chairman, Señor Presidente, the Canadian delegation would like to compliment Colombia, and you especially, on your assumption of the Chair of the COPUOS Committee for the next year. Canada will do its best towards the goal of a sustainable and equitable distribution of the benefits of space. We look forward to many positive developments under your guidance.

(Continued in French) Canada would also like to thank your predecessor, Gérard Brachet of France, for the leadership that he has demonstrated over the past year, *(continued in English)* an influential COPUOS participant in many capacities. He has made an exceptional contribution to COPUOS, the distribution of a working paper on the future role and the activities of the Committee. We look forward to productive discussions on its recommendations leading to practical next steps in the COPUOS reform agenda.

Mr. Chairman, this session comes at a time when the eyes of the world are on the victims of natural disasters, particular in China and Burma. We wish to express our deepest sympathy to those two countries. We would also like to say just how much the continuity of existing collaboration with multilateral initiatives, such as the International Charter for Space and Major Disasters, UNSPIDER, and the International Telecommunications Union, can name but a few, is essential and shows the importance of space technologies and applications for the benefits of the populations affected.

This leads us once again to reiterate our support for the content of resolution 61/217, adopted by the United Nations General Assembly at its sixty-first session.

Mr. Chairman, at the meeting of the Scientific and Technical Subcommittee, the Director of the Office for Outer Space Affairs made a general declaration concerning past and future activities. She indicated that to increase the inherent and synergy in space-related work, the Office for Outer Space Affairs will only take measures to promote dialogue and collaboration between entities and organizations under the auspices of the United Nations. All delegations welcomed that declaration and we wish to reiterate that within the framework of the meetings of the Conference on Disarmament last year, a number of delegations expressed an interest in initiating dialogue between that Organization and COPUOS on topics of mutual interest. Canada is of the opinion that COPUOS is currently carrying out or initiating activities that could enrich discussions on the way at the Conference on Disarmament. Canada has proposed that formal and informal meetings be identified to promote communications between the two Organizations.

(Continued in French) We come to Geneva to work and to talk about the works of the Committee. We hope that this will be something that will continue in the future for the benefit of all.

(Continued in English) Canada is satisfied that the Legal Subcommittee had a successful session this year and that we particularly value the work being carried out by the Working Group on National Legislation Relevant to the Exploration and Use of Outer Space.

Canada noted with interest that the Joint Expert Group of the Scientific and Technical Subcommittee of the United Nations COPUOS and the International Atomic Energy Agency, IAEA, recently circulated a draft document which contained update texts of the draft Safety Framework for Nuclear Power Sources Applications in Outer Space, Including Data Policy Requirements and Guidance for Government. Canada welcomes the good cooperation between COPUOS and the IAEA on this important issue.

Before commencing the second part of my remarks concerning the review of space activities in Canada, I would like once again to welcome Switzerland and Bolivia as new member States of the Committee.

Once again, we would also like to congratulate Dr. Mazlan Othman on assuming the Director position of the Office for Outer Space Affairs

and also thank the staff for their excellent work during the year and for preparing this meeting.

Mr. Chairman, since the fiftieth session of the Committee, Canada has had some notable achievements in space. A detailed report is given in our general declaration at the meeting of the Scientific and Technical Subcommittee. Allow me to summarize by citing the most significant events.

The highlights for Canada in terms of Earth observation was the successful launch of RADARSAT-2 satellite on 18 December. Canada's radar satellite, as a powerful technical advancement that will enhance marine surveillance like monitoring disaster management, environmental monitoring, resource management and mapping. In fact, the images of RADARSAT-1 and RADARSAT-2 made a contribution to the International Charter in surveying events in Burma.

Within the framework of the International Polar Year, the Canada Centre for Remote Sensing produced a first circumpolar satellite map of the Arctic at a space resolution of 250 metres from motive satellite data. In space robotics, the launch and commissioning of the special purpose vectrus(?) manipulator Dexter during the STS-123 Mission, also marked a defining moment. Dexter is part of Canada's contribution to the International Space Station.

In space exploration, we are delighted that NASA's Phoenix Lander touched down successfully on the Red Planet on 25 May. The Lander is carrying a Canadian meteorological station, designed to record meteorologically and climatic conditions on Mars. The Station has already begun its activities and is operating smoothly.

In space science, three Canadian experiments were among those launched into orbit by the European Space Agency, ESA, in September 2007.

In the area of international legislation, Canada proceeded to register three Canadian satellites, RADARSAT-2 and EX-1R and NEF-3, as stipulated in the Convention on Registration of Objects Launched in Outer Space.

In the area of policies, the Government of Canada announced a National Science and Technology Strategy in 2007. The Strategy comprises four guiding principles for the space sector, pursuing excellent, developing expertise, fostering partnerships, particularly internationally, and focusing on applications.

I would like to say a few words about international cooperation. Canada continues to be strongly interested in multilateral, regional and bilateral activities and discussions. In Africa and Asia, we are continuing discussions so that Canadian space technology and applications can be a service to the developing countries. Discussions are underway with the European Space Agency for a second phase of the TIGER initiative in Africa and we recently met with the Mekon River Commission to conclude reviewing our agreement with that regional organization.

With regard to the United States, a joint initiative between the Canadian Space Agency, the United States Meteorological(?) Survey and NASA resulted in 26 R&D projects on the application of inter-parametric data from RADARSAT-1.

Canada continues to be active in other major initiatives as well. Canada reiterated its support for the Group on Earth Observation, GEO, particularly at the GEO Ministerial Summit in Cape Town in November 2007. Our country played an active role in negotiations surrounding the Cape Town Declaration. We also chaired the Group for the Americas in order to support regional efforts.

Through the Canadian Space Agency, Canada was one of the first countries to adhere to the International Charter on Space and Major Disasters and we hope to continue supporting international efforts along those lines.

Consequently, we are open to discussions to explore potential synergy between the Charter and the UNSPIDER and other United Nations institutions initiatives and programmes.

Canada is delighted with the collective efforts of 14 international space agencies to develop a framework that will focus and guide the collaboration on future space exploration missions. The Global Exploration Strategy presents a vision for robotic and human space exploration, focusing on destinations within the solar system where we may one day live and work. It will elaborate an Action Plan to share the strategies and efforts of individual nations so that all can achieve their exploration goals more effectively and safely.

Canada will continue to support those collective efforts in the years ahead.

Mr. Chairman, the remainder of 2008 and 2009 shaping up to the full of activity for Canada as

well, with the holding this summer of the thirty-seventh Scientific Assembly and celebrations surrounding the fiftieth anniversary of the Committee on Space, COSPAR. There is also the fall launch of the HERSHEL(?) Plant Mission carrying two Canadian scientific instruments, the winter launch of the CASIO Mission, a Canadian scientific research and telecommunications satellite, the participation by two Canadian astronauts in spring 2009 in space missions to the International Space Station, and lastly, the results of the campaign to recruit two new astronauts in summer 2009.

(Continued in French) Thank you Mr. Chairman.

The CHAIRMAN *(interpretation from Spanish)*: My thanks to the Head of the Canadian delegation, Mrs. Pearl Williams. Let me assure you that we have made all of the necessary contacts with your Attaché concerning the initiatives that you mentioned in your statement and these will indeed by duly attended by the new Chairman. And I also thank you very much for your kind words to me and to the Bureau.

I give the floor to Daniel Codorniu-Pujals from Cuba this time.

Mr. D. CODORNIU-PUJALS (Cuba) *(interpretation from Spanish)*: Thank you Chair. We fully adhere to the statement delivered by the distinguished Ambassador of Argentina on behalf of GRULAC. We would also like to commend you on the occasion of your election to the Chair of this Committee during the fifty-first session and for the fifty-second.

Since we know you very well and we are familiar with your experience in the peaceful use of outer space, we are fully convinced that under your leadership we will reach a successful conclusion.

We also extend our commendment(s) to the other members of the Bureau wishing them full success in their work and express our full willingness to contribute to reaching the desired objectives in this meeting.

I take this opportunity to express our gratitude to the Office for Outer Space Affairs and in particular towards its Director, Dr. Mazlan Othman, for the efforts made in preparing and organizing this meeting.

We also wish to express our condolences, like other speakers, to the peoples and Governments of China and Myanmar following the recent natural disasters.

During the previous session, Chairman, and since that time, Cuba has seen space research and applications on the rise and we have achieved modest but undeniable achievements in favour of sustainable development of our country. These are all given in some detail in the report presented by Cuba last December in document A/AC.105/90/Add.1. All delegations have received.

I will just limit myself, for example, to pointing out that the increase in the utilization of space technology in the field of meteorology has led to an improvement in forecasting of an efficiency of now above 90 per cent. This is of vital importance in a zone which is constantly battered by tropical cyclones.

Also satellite images of high-definition have continued to provide us very important information on forest fires.

Cuban agriculture continues to use space applications in drawing up thematic maps for agriculture cooperatives in our provinces, including infrastructure and crop yields (fields?). The results here have been implemented in geographical information systems allowing us to improve the efficiency of agricultural production.

Through the supervised classification of satellite images, Cuban researchers were able to identify and map five Bentonic(?) habitats of the Gulf of Batabanó in Cuba, taking into account the sub-strata and marine vegetation.

In the last year we have made progress in the study of the marine or ocean currents on the Cuban offshore shelf using satellite images.

Also we have seen important progress made in the development of computerized systems for the interpretation of satellite maps as well as the _____(?) of the projects with the application of GTS.

Chairman, once again we would like to stress the importance that we redouble our efforts to avoid and to prevent having outer space be turned into a theatre of the arms race. This would not only definitively destroy the promising future of space applications for the sustainable development of mankind but would put its very existence into question.

We are of the opinion, like always, that COPUOS has to assume a special role both in disseminating and promoting the peaceful uses of outer space as well as for the contribution that it can and should continue to make for the consolidation and perfectioning of the ethical principles and legal instruments that guarantee a totally peaceful, just and non-discriminatory use of all space applications. We hope that the debates on different items in our agenda for this session will help us to go into greater depth on all of these points, but above all, they will allow us to make progress on coming up with practical measures aimed at definitive consolidating outer space as the sole scenario for peaceful applications for the benefit of all mankind. Thank you Chairman.

The CHAIRMAN *(interpretation from Spanish)*: Let me thank Daniel Codorniu-Pujals for his statement on behalf of Cuba and for his kind words.

Now it is my pleasure to give the floor to the representative of Italy, Simona Di Ciaccio. You have the floor.

Ms. S. DI CIACCIO (Italy): Thank you. Mr. Chairman, distinguished delegates, I would like to begin by extending the Italian delegation's warmest congratulations to you, Mr. Ciro Arévalo-Yepes, elected Chairman of this Committee for the period 2008-2009. On behalf of the Italian delegation, we convey all our best wishes to you that the coming two years may truly be fruitful. We are sure that your years of space talent and your passion and commitment on the use of outer space activities in favour of sustainable development will bring important benefits to the achievements of the COPUOS objectives.

In addition, the Italian delegation would like to express special appreciation to Mr. Gérard Brachet for his professional and rigorous coordination capacity programme in the past chairmanship of this Committee.

Mr. Chairman, 2008 is the twentieth anniversary of the Italian Space Agency Foundation, founded in May 1988 to be precise. Today we have an occasion to look back and make an evaluation of its activities. You will receive a short brochure relevant to the 44 years of the Italian space activities and the 20 years of the Italian Space Agency.

During its two decades of history, the Italian Space Agency reached many important and significant milestones in national missions and in missions in cooperation with the most important space agencies. With my brief statement, let me say something regarding the latest achievements.

During its 12 months of operational life, AGILA(?), a small Italian mission for gamma ray astronomy, provided the first complete map of the sky as observed in gamma radiation. It also studied black holes, neutron stars, gamma ray bursts and terrestrial gamma flares caused by tropical storms. The Italian brother, SUNDA(?), SHADARD(?)t of the NASA mission, Mars Reconnaissance Orbiter, has provided images of the Mars North Borne(?) Climatology(?). Its features allow to watch using radio frequencies inside the North Pole surface for several hundred metres in that.

SHADARD(?) has been working since the beginning of November 2006 and today we have the first important results according to which their layers are mainly shaped from ice and powder mixtures in different fractions. The analysis of these layers has given various and important results leading to the acquisition of a better knowledge of Mars climatology, as well as the variations of the obligative(?) and orbital eccentricity of the planet that could have had cycles of about millions of years.

And then launched 15 October 1997 on a seven-year journey to Saturn, traversing 2,2 billion miles, CASSINI is one of the most scientifically capable spacecraft ever launched. The CASSINI-HUYGENS Mission is a cooperative project of NASA, the European Space and the Italian Space Agency. The CASSINI international team is expanding its itinerary for two years. The historic travellers stunning discoveries and images have revolutionalized our knowledge of Saturn and its Moon. In the expanded mission, the spacecraft may come as close as 15 miles from the Moon's surface. CASSINI's observations of Saturn's largest Moon, Cithon(?), have given scientists a glimpse of what might have been like before life evolved. Then our belief Cithon possesses many parallels to Earth, including lakes, rivers, channels, dunes, rain, snow, clouds, mountains, and possibly good _____(?) cleaner.

Mr. Chairman, in 2007, as you know, two of the four COSMOS-SKYMET satellite constellation were launched and today I can inform you that they are already proving to be a precious resource in humanitarian emergencies, one of the cases today. COSMOS-SKYMET satellites capture data of the area surrounding the city of Guanchan(?) in China, close to the epicentre of the earthquake. By request of the Chinese Government, the Polytechnical of Milan and the Department of Civil Protection have obtained the

first Inter-Terrogramme of the Sichuan earthquake. The Inter-Terrogramme is based on data captured by cosmos satellites on EPIDATA(?) seen one month before the earthquake, and on 15 May, a few days after the event. Dedicated to algorithms have allowed to compare the two images revealing the formations of the Earth's surface. The image is in force colours which are used to express different distances between the same point on Earth and the satellite.

Furthermore, the data taken in recent days by COSMOS-SKYMET satellites show in detail the effects of the _____(?) cyclone in the Burma region, Myanmar, and the state of devastation and flooding in the area. The data were readily offered by the Italian Space Agency to EPACA(?), a non-profit organization responsible for processing satellite data for the World Truth(?) Programme.

The coordinator of the emergency preparedness branch of the World Truth(?) Programme, Carlos Velosa(?) of Italy, thanked the Italian Space Agency and its President, Giovanni Binyami(?), for immediately providing the images.

These two important experiences give us all again the evidence of the usefulness of national and international investment in outer space in case of humanitarian emergencies. Italy is more and more convinced of the relevance and urgency in implementing the recommendations of the UNISPACE III, as expressed in the item 7 of our agenda.

Mr. Chairman, Italy supports the agenda item 6 which the Committee considers a matter of priority to find ways and means of maintaining outer space for peaceful purposes.

In this spirit, and according to item 8 (2), the report of the Scientific and Technical Subcommittee on its forty-fifth session, Italy has started two joint working groups with Kenyan colleagues in order to start two significant projects for sustainable development in Sub-Saharan Africa, that we will explain the next days.

With regard to the use of nuclear power sources in outer space, Italy actively participated in the work of the Joint Technical Workshop on Objectives, Scope and General Attributes of Potential Technical Safety Framework for Nuclear Power Sources in Outer Space, co-organized by the International Atomic Energy Agency and the Scientific and Technical Subcommittee.

Italy supports the objectives of the International Committee on Global Navigation Satellite Systems, in particular its function as Coordinator among providers of the national and international navigation systems, and carries on many initiatives at the national level in order to disseminate information related to its activities.

Mr. Chairman, as long as agenda item 9, report of the Legal Subcommittee on its forty-seventh session is concerned, the Italian delegation is particularly pleased that after the endorsement by the General Assembly of the Space Debris Mitigation Guidelines are brought to the COPUOS, a consensus has been reached on a one-year single issue item, General Exchange of Information on National Mechanism Relating to Space Debris Mitigation Measures, sponsored also by Ukraine, to be inserted as a new agenda item of the Legal Subcommittee next year. This proposal is in line with what has been decided at European coordination level last year and we take this opportunity to thank all delegations who played an active role in helping to reach the consensus and those who supported this effort. We are ready to actively contribute in the debate next year.

A statement will be presented on the agenda items 8, 9 and 13. Thank you very much for your attention.

The CHAIRMAN *(interpretation from Spanish)*: Thank you very much representative of Italy. I have not pronounced your name properly, I pronounced it with a Spanish accent. Thank you very much for your kind words to the Chair.

Let me give the floor at this time to the distinguished representative of Germany, Joachim Marschall von Bieberstein. You have the floor Sir.

Mr. J. M. VON BEIBERSTEIN (Germany): Señor Presidente, distinguished delegates, dear colleagues. First, let me congratulate you, Mr. Chairman, on behalf of the German delegation on your election as the new Chairman of this Committee. We are convinced that under your able guidance, the COPUOS will make further considerable progress in its work.

I also take this opportunity to thank Gérard Brachet for the substantial contribution he has made during the two years of his chairmanship. The adoption of the Space Debris Mitigation Guidelines and of the resolution of registration issues, as well as the SPIDER Programme, are highlights linked to his chairmanship.

Last but not least, we would like to thank Mazlan Othman and her staff for aptly carrying on the most efficient work of her predecessor Sergio Camacho as Director of the Office for Outer Space Affairs.

Mr. Chairman, the past few months have seen a number of major natural disasters. We would like to express our deepest sympathies to the peoples of China, Myanmar and Namibia, who have been severely affected by these disasters.

Germany, through its Centre for Satellite-Based Crisis Information, is contributing towards disaster relief to providing information supporting the respective relief actions.

In the case of the severe floods in Namibia, the newly inaugurated SPIDER Office in Bonn was involved in the relief operations.

Mr. Chairman, the Space Debris Mitigation Guidelines, the registration issue and the SPIDER Programme have marked the progress of this Committee since its last session. All are of particular importance to Germany. Space Debris Mitigation Guidelines are an important step into the direction of our ultimate goal that is ensuring the long-term sustainability of the use of outer space. The Bonn SPIDER Office was inaugurated last fall, now being fully operative and already having proven its value on several occasions. We sincerely hope that the sustainability of its operation will be guaranteed in the interest of a speediness and efficiency of future relief actions. We sincerely thank the delegations who have supported the Programme.

In the course of implementing the SPIDER Work Plan, the Second United Nations International SPIDER Workshop in Bonn entitled "Disaster Management and Space Technology: Bridging the Gap" will be held from 13-15 October of this year. It will be supported by the International Strategy for Disaster Reduction and by the United Nations University. My delegation would like to thank the staff of UNSPIDER for their tireless work in the course of the Programme's implementation.

Mr. Chairman, space technology has a well-established place in public life and enjoys firm support from my Government. A strong focus had traditionally been set by Germany on scientific and research aspects, which, in view of the global challenges of climate change and the scarcity of natural resources, will steadily gain relevance.

The European GMES Programme has added a new dimension to these efforts. We expect the first operational services of GMES to take off in the course of this year. In fact, much of Germany's efforts in the area of space-based research undertaken in the European context, but also on the basis of international cooperation beyond Europe involving both developed and developing nations, let me take the opportunity to congratulate our American colleagues on the occasion of the fiftieth anniversary of NASA, historically Germany's first partner in international cooperation.

An important recent example for Germany's international cooperation is the International Space Station. Germany has significantly contributed to the Columbus Space Laboratory and its operation as well as to the development of ATV. Considering the expense and the complexity of developing space technology, international cooperation in space affairs remain key. Space must be and remain a symbol of the peaceful interaction among all nations. But let us also keep in mind that space technology is not an end in itself but ultimately has to serve the needs of human beings.

Mr. Chairman, during this year's session, the German delegation will offer two presentations directly related to the agenda items. And agenda item 8 entitled "Report of the Scientific and Technical Subcommittee", the presentation Rapid Mapping Services and Applications for Emergency Response, and under agenda item 12 entitled "Space and Water", the presentation "Space Perspective on Oceans and Inland Waters".

Germany will continue to actively support the work of the COPUOS and its Subcommittees. The German delegation looks forward to a successful session of this year's Committee. Thank you.

The CHAIRMAN *(interpretation from Spanish)*: Let me thank the representative of Germany for that statement and his kind words.

It is now my pleasure to give the floor to the Ambassador from Chile.

Mr. R. GONZÁLEZ ANINAT (Chile) *(interpretation from Spanish)*: Thank you very much Chair. First of all, for me it is a great satisfaction to congratulate you on your chairmanship and your appointment to the Chair. It is more than a great satisfaction for the Latin American Group to be represented by you, Sir, and not for protocol reasons but for substantive reasons.

We feel extraordinarily well-represented by you and by the other members of the Bureau. We believe that the Office for Outer Space Affairs is deeply deserving of our deepest confidence.

Now if I may Sir, a few remarks, without following any particular diplomatically coherent line but rather speaking from my heart and from my mind, a few ideas that come to mind following what I have heard in this forum.

First of all, let me refer to my predecessor, preceding speaker rather, the distinguished representative of Germany to say that I fully agree with the remarks he made under general remarks. I have taken note of his concerns and we fully agree that space technology is a tool, a very efficient tool, to _____(?) certain concerns of the international community is facing, climate change and so on, and obviously as we saw yesterday, the food crisis, food and security. And this is, I think, why there is special panel set up by the General Assembly of the United Nations to deal with that.

But, again, speaking from an emotional viewpoint because we in recent times in my own country have had to deal with natural disasters, we would like to express our condolences to our brother countries, like the Peoples Republic of China and Myanmar, who have suffered at the hands of natural disasters.

More concretely to the Argentinian delegate and to Dr. Varotto talking about the mapping from outer space. I would say that this is something that we can all work on together and I think through CONAE we would be able to use these images from satellites to deal with a very complex situation which would mean the virtual disappearance of a town in the south of Shaotem(?) Province.

Now, through Nigeria and NIGERIASAT, in a very generous gesture, we have been able to receive a lot of very valuable data for this very important matter.

Then this is really the kind of essential cooperation that we have to have in this Commission. There is also the space cooperation as mentioned in the treaties and so on which is a kind of legal basis that they create a tradition for law to follow in this respect, and the other kind which is more efficient, is the international cooperation which we can call the regionalization of cooperation. And in the case of Latin America, as you are very much aware of this Mr. Chairman since you are one of the champions of this in a previous conference and a member of the Group of Experts for Latin America on this, and you know that this is a very important channel for cooperation, what I would call intra-regional cooperation and even intra-country cooperation. You know that at this time in Chile, there are at least 10 universities actively participating in space affairs and are very important activities. And, for example, the University of Lacarena(?) has been working with Argentina on very valid projects and we are very pleased to have the opportunities given to us by CONAE for training, our thanks to Argentina. This, of course, is of the benefit for many countries in the region and so far all of this has been articulated around the Space Conference of the Americas.

There are two resolutions of the General Assembly in this regard in addition to different reports from COPUOS meetings that refer to the upcoming Space Conference of the Americas that we hold in Guatemala very soon and we are quite sure that the meeting will be a successful one. It even has a mandate from the General Assembly.

Speaking modestly, on behalf of Chile, if we do not do this in concertation (consultation?) in our efforts to strengthening cooperation without any kind of discrimination, if we do not do it this way we will not be able to effectively combat these global menaces and threats and challenges that we face.

So we think that all of this demands the creation of a regional entity to give greater impulse to our efforts in Latin America to reach better consensus on all of our efforts as well.

Among our concerns here is perfecting our space legislation and making sure that this is fully in line with the new challenges that we face. No one can claim, in our opinion, that, for example, the principles of remote observation established in 1976, I believe, now cover our needs in 2008. I would raise the question and I hope that I am being heard, between 1986 and 2008 nothing had happened in the field of telecommunications. Maybe the images got a little bit better, but, in fact, you can see the difference when you go into any living room in any house.

So the images that we see from the satellites for your social and economic development are very, very important, very pertinent. So I think we really need to review things in this respect. We really need to have a very specific study done on this. We must not forget that one of the principles is that countries have access to data but they do not specify the quality of the data or any kind of a timeframe for the provision of

this data. So legal phrasing alike as soon as it is obtained this kind of data, what does that actually mean?

We would like to unofficially state concerning the Space Conference of the Americas that we are considering the possibility of having a Preparatory Conference next year in Chile. Along another line of ideas, we would like to emphasize our participation and organization which we believe is very important, which is HEYOS(?) for Latin America. We think it is so important that this association is something we will be very much going into with a whole series of projects.

Thus far as formatting international and regional cooperation, we think it is very important the European Space Research Association and having be a permanent observer with COPUOS, we think that astronomy plays a very fundamental role here. Chile is fairly well placed in that respect because of the clear skies in the north where excellent astronomical observation take place which is shown to the rest of the world. Any Chilean experts have what one, two per cent, three per cent, in other words, 97 per cent remaining of the time is open to the international community for use and we have got something like reservations for like two years ahead of its schedule, ahead of time. So we would feel that that Organization should have permanent observer status to the Committee.

A few Chilean initiatives to be mentioned, modest but important for us. The launching of a Chilean satellite. We are very much working on this and it is very far advanced. And also the fact that we have made progress on structuring and institutionalizing a Chilean Space Agency, clearly a civilian endeavour under our Ministry, Presidency, which is kind of the political committee which is going to put this through, a front-line Ministry so to speak.

The national activities to be mentioned. An important space conference which I think is on space technology and the challenges, I think this is in our report, an area of photometry, with the international seminar and an Earth Station, a planned Earth Station, a national system for territorial surveying. Here are there will be a whole series of seminars as well which will be of fairly great importance for us. Our National Emergency Preparedness and mapping, well I have said a few words in this respect already. A Centre, I cannot remember the name exactly, that deals with SPOT images and which is doing some mapping from around the Arika(?) region for natural resource mapping, also important activities carried out by the Armed Forces for civilian applications for the National Geographic Institute. These are just a few of the activities, as you can see, both from a scientific, academic and legal viewpoint. And we have strong proponents of the corporates of international space law here. And also the creation of a network of studies for space law in Latin America on the basis of the mandate given by the Americas Space Conference. This would allow us to identify the legal framework which will make it possible for us to defend certain rights and demand certain obligations from the international community, another important point.

Lastly, I would like to mention that the Space Conference for the Americas has been recognized by the General Assembly, by COPUOS as well, which has always referred to the importance of development of activities here on space cooperation in the Americas and particularly in the conferences and the action plans and, more particularly, in the last one held in Ecuador in 2006 and the following meeting of the Group of Experts in the same field.

Now, this is a kind of a brief overview. Let me just say that when it comes to food security, we have asked our different appropriate ministries, health, labour and so on to also look at this issue of food security, something we work on. And here we would also like to thank the distinguished delegation of India which already, with its long-distance educational programme, and a very vast skill, really began work here and made a valuable contribution to the economic and social aspects of this issue.

We also looked at the space applications in the sense that this is not a vacuum, but rather this is an area where we are making every effort to solve the most essential problems that we face here on Earth, and among these is the MDGs and trying to meet the MDGs, that is in science and technology and including science and space technology to do so. Thank you.

The CHAIRMAN *(interpretation from Spanish)*: I express my thanks to Raimundo González from Chile, the distinguished Ambassador for his kind words to the Chair. I am sure that in going through the different agenda items and many of the proposals that you have advanced here, we will have time for more ample discussion and let me thank you for that Ambassador.

It is now my pleasure to give the floor to a new member of the Committee, Bolivia, Ambassador Bazoberry.

Mr. H. BAZOBERRY (Bolivia) *(interpretation from Spanish)*: Chairman, Mr. Arévalo, first of all, please allow me to on behalf of the Bolivian delegation to express our congratulations to you on the occasion of your election to the Chair of COPUOS for 2008-2009. We also extend our congratulations to Mr. Suvit Vibulsresth of Thailand as First Vice-President, and to Filipe Duarte Santos of Portugal as Second Vice-President/Rapporteur, of the Committee.

At the same to the members of the Secretariat and to the Director of the Office for Outer Space Affairs.

Chairman, in participating as a full-fledged member of COPUOS, we wish to reiterate the importance that we see in the use of outer space for peaceful ends as a contribution to sustainable development of mankind and for the sake of greater social justice and equity. In this respect, my country has followed with a great deal of interest all of the work undertaken by the Scientific and Technical Subcommittee and the Legal Subcommittee and the recent meetings they held prior to this fifty-first session of COPUOS.

Bolivia wishes to acknowledge the efforts that States members are undertaking for the application of space science and technology for the development of international norms relative to an adequate regulation of outer space, taking into account the interests and needs of all countries, in particular those of the developing world.

Chairman, in concluding this brief intervention, please let me reiterate my gratitude to all of the delegations that have welcomed Bolivia as a new member of COPUOS. We are sure that under your leadership the present session of the Committee will conclude with a full examination of all of the items set forth on the agenda, in particular the item that Bolivia will be particularly discussed about which is water. Thank you.

The CHAIRMAN *(interpretation from Spanish)*: Thank you Ambassador Bazoberry and let me reiterate on all of our behalfs our satisfaction at seeing your country become a full-fledge member of COPUOS. Welcome again and thank you for your kind words.

Now, looking at my list of speakers from States, I see no more names. I then move on to give the floor to the observer from the International Astronautical Federation, Mr. James Zimmerman. You have the floor.

Mr. J. ZIMMERMAN (International Astronautical Federation): Thank you Mr. Chairman. On behalf of the member organizations of the International Astronautical Federation, I am delighted to participate in this fifty-first session of this Committee and to have the opportunity today to make some brief remarks.

I wish to congratulate the Chair and Vice-Chairs on their new responsibilities and to express my appreciation to the outgoing Chair and Vice-Chairs who have contributed significantly to the work of this Committee and who have also strengthened the relationship between the Committee and the IAF.

The International Astronautical Federation is an association of space agencies, companies, professional societies and research organizations. We are a global federation with approximately 200 members in 45 countries. Our membership is growing. Some of the organizations participating in this session, in particular from Africa, from Asia and from Latin America, will become IAF members during the coming year and in so doing join us in promoting space activities and space cooperation at the global level.

During the past year, we have been particularly active in promoting the exchange of information on space programmes. As many of you know, we organize annual congresses, held in various locations throughout the world. Our fifty-ninth International Astronautical Congress will take place in Glasgow, Scotland, from 29 September to 3 October. We are also planning an International Astronautical Congress in Daejon in the Republic of Korea in 2009, and in Prague in the Czech Republic in 2010.

I encourage delegates from this Committee to join us in September in Glasgow and in 2009 in Daejon, and in 2010 in Prague.

The IAF is in the process of establishing an online archive of the papers presented during past International Astronautical Congresses. This archive, when it is completed, will contain a wealth of information on space activities around the world during the past 50 years.

In addition, the Federation, with the support of the International Institute of Space Law, prepares the United Nations Annual Report on Space Activities, a copy of which has been distributed to each of the delegations.

We are also active in increasing public awareness of global space activities. On 26 March 2008 we held an International Seminar in Paris that focused on recent space programme achievements including the launch of Space Station elements from Europe, Japan and Canada, as well as initial results from Japan's KOGUA(?) Lunar Mission and initial results from China's Shenyou(?) Lunar Mission.

This 9-10 July the IAF will hold a Symposium celebrating the tenth anniversary of the International Space Station Programme and looking ahead to the future of this International Laboratory in low-Earth orbit. This Space Station Symposium will be held in UNESCO Headquarters in Paris, France. Delegations interested in sending representatives are cordially invited to contact me or one of my Federation colleagues for an invitation.

Looking ahead, the Federation is also making plans to hold an International Conference on Lunar Exploration, which will take place in Beijing, China, in June 2010.

We are also active in promoting the use of space systems for human development. Each year the Federation and the United Nations Office for Outer Space Affairs organize a Workshop on the Use of Space Technology for Sustainable Development. This year's Workshop will take place in Glasgow, Scotland, on 26 and 27 September. It will focus on the application of space technology to manage the potentially hazardous events around this planet. Delegations interested in participating in the Workshop are invited to contact the Office for Outer Space Affairs Secretariat.

Many of the Federation's 30 Administrative and Technical Committees also focus on matters relating to human development. With this in mind, the Federation has organized a special session to acquaint delegations with the work of these four Technical Committees, four of Technical Committees, which will be held today at 1400 hours in this Committee Room. I cordially invite all delegations to participate in this and I think, in particular, delegations from emerging space nations will find the presentations from these Committees of great interest.

We are also active in developing a highly-motivated international knowledgeable workforce. When viewed from the perspective of human history, the exploration and utilization of space is a relatively new undertaking. But though our efforts are just beginning and though many of us are still young in spirit, we face a growing challenge to attract talented young people to help us shape the space initiatives of the twenty-first century. These future leaders can benefit from the experiences, the vision and the courage of those who pioneered the space programmes of the first 50 years of the Space Age. The next generation of space leaders will also need to be internationally knowledgeable and sophisticated.

The International Astronautical Federation is actively involved in helping to attract the new generation of space pioneers and to provide them with global experiences and contacts they can draw upon in the years ahead. Our student and our young professional programmes are increasingly active, not only during IAF meetings, but also through online events. During the coming year, the Federation hopes to expand its efforts in this regard and to focus in particular on stimulating interest in space among youth in emerging space nations. We look forward to collaborating with the Office for Outer Space Affairs and with this Committee as we pursue these important objectives.

Mr. Chairman, thank you for the opportunity to discuss the activities and the plans of the International Astronautical Federation.

The CHAIRMAN *(interpretation from Spanish)*: Thank you very much Mr. Zimmermann of the International Astronautical Federation. Thank you very much for your kind words to the entire Bureau. Our cooperation with the Federation has always been very, very useful and we intend to pursue this strategic alliance, if I can put it that way. Thank you for your statement.

We are not going on to the presentation to be made by Mrs. Shana Dale, Deputy Administrator of NASA. It is an honour for us to have her here with us. She will be making this presentation on NASA 50 Years and the Future.

And this will be a three-part presentation, an introduction, to be given to us by Madam Dale, to be followed by a video and then Mrs. Dale will be taking the floor to conclude.

Ms. S. DALE (National Aeronautics and Space Administration): Mr. Chairman and distinguished delegates, thank you for the opportunity to address the Committee today at its fifty-first session. It is truly an honour for me to join you on the occasion of the fiftieth anniversary of the establishment of the United Nations Committee on the Peaceful Uses of Outer Space.

You may be aware that the National Aeronautics and Space Administration is also celebrating its fiftieth anniversary this year. This is not exactly a coincidence. Upon its creation, NASA was embodied with a strong statement of United States policy in favour of international cooperation. Just over a month after creating NASA, United States President Dwight Eisenhower asked the United Nations General Assembly to include on its agenda a draft United States resolution calling for the establishment of an Ad Hoc Committee on the Peaceful Uses of Outer Space. Seventeen other nations joined the United States in sponsoring resolution 134A(1348?) which was approved by the General Assembly on 13 December 1958. Almost exactly one year later, on 12 December 1959, the General Assembly adopted resolution 1472 creating the permanent United Nations Committee on the Peaceful Uses of Outer Space, a Committee whose membership has grown from 18 to 69 member countries over the intervening years. What a spectacular journey our many nations have undertaken in the peaceful uses of outer space over the last 50 years.

For its part, COPUOS has led the way with the establishment of the outer space treaties which form the bedrock principles which we carry out our activities in space. We commend the continuing work of the Committee to bring the benefits of space technology to developing countries and to encourage the use of space as a tool for sustainable development here on Earth. And we praise the work of the Committee for positively and effectively addressing issues related to sustainable access to space for all, the mitigation of space debris and the safe use of nuclear power sources in space.

Throughout this period, the Committee has been a major advocate and catalyst for international space cooperation. We at NASA have been intimately involved in all of these COPUOS activities and we plan to remain so in the future because we share the Committee's vision for the peaceful use of outer space by all nations.

Many of our goals and missions to date have been achieved in coordination with international partners. International cooperation was envisioned as a key element and the United States legislation that formally established NASA. Over the past five decades, NASA has concluded more than 3,000 agreements with over 100 nations and international organizations and the level of new cooperation is rising each year. During the past year alone, NASA signed 67 new international agreements with governmental and non-governmental entities in North America, South America, Europe, Asia, Africa and Australia.

As we look back at NASA's first 50 years, I think you may agree that we have achieved quite a bit as well. To triumph and tragedy, we have walked on the Moon, piloted the first wind spacecraft and led construction of the International Space Station. NASA's robotic spacecraft have studied the Earth and the solar system, imaged the Universe at many wave lengths and peered back to the beginnings of time. Our Scramjet aircraft have reached the aeronautical frontier, travelling 7,000 miles per hour, 10 times the speed of sound and thus setting the world's record. The societal impact of space flight is not always appreciated but it extends well beyond the usual topic of technology spin-offs, of which there are many that are critically important to the lives of human beings.

In the broadest sense, space flight has changed the way we view ourselves and our home planet, placing Earth and its inhabitants in the context of 13.7 billion years of cosmic evolution.

The iconic image called Earth Rise, of the full Earth taken by the crew of Apollo VIII, and numerous later images, including the pale blue dot as seen by the Voyager spacecraft, have given us a new sense of the fragility of our planet and the need to take care of it.

The great public interest in the spectacular images from the Hubble Space Telescope and other spacecraft show how deeply the results of space exploration have penetrated public consciousness.

All of this may be seen as part of a long tradition, both for the United States and for mankind. Quite aside from the short-term benefits of applications satellites, jobs and inspiration to the young to study maths, engineering and science, we believe that it is necessary for creative societies to look outward and reach continually towards the next horizon.

Distinguished delegates, I would now like to take you back for a look at NASA's first fifty years.

Video

End of video

We are proud of the past 50 years. We are also proud of the groundbreaking work that is being done now to lay our paths for the future. There are significant efforts that are currently underway with many of the nations that are represented in this room to implement a Global Exploration Strategy. NASA's efforts to support the implementation of the Strategy are guided by the United States Exploration Policy, established in 2004. It may surprise some of you that NASA's future exploration plans begin with something that is very much in here and now. The continued safe operation of the Space Shuttle through 2010 and the continued assembly of the International Space Station.

After the tragic loss of the Space Shuttle Columbia in 2003, engineers, technicians and contractors at NASA worked tirelessly to safely return the Space Shuttle to flight. We also refocused our future Space Shuttle Missions on completing the International Space Station.

I am very pleased to report to all of you that the assembly of this unprecedented orbiting international research facility will soon be completed. With significant transportation support from our colleagues, from the Russian Federal Space Agency, RUSCOSMOS, the ISS Partnership has safely maintained a continuous human presence on orbit for over seven years. Two weeks ago we celebrated the arrival of Japan's research module, KIBO, at the Space Station and several months before that, Canada's robotic manipulator, DEXTER, Europe's Columbus module and the jewels of our own automated transfer vehicle.

These steps are more than engineering accomplishments. They are visible testimony to the strength and durability of noble international endeavours in science and technology. Although not yet completed, the International Space Station is already serving as an ideal test bed for technology advancement and for operational experience that is essential for long-duration missions beyond low-Earth orbit.

In addition, ongoing and future research onboard the International Space Station related to the effects on humans of long-duration space flight will help us to return humans to the Moon's surface by 2020.

As I mentioned earlier, the Space Shuttle will cease operations in 2010. Consistent with United States Exploration Policy, NASA is currently developing a new generation of space transportation systems, including the ORION spacecraft and ARIES-1 launch vehicle, which will be capable of initially servicing the International Space Station in the 2015 timeframe. And soon, we will initiate work on ARIES-5 which will transport humans and cargo to the Moon and beyond.

The major ORION and ARIES-1 proponents were put under contract last year. An engineering model of the ORION vehicle has been built and will be used to test the launch escape system this September. The ARIES-1 test flight, ARIES-1X, is scheduled for mid-2009.

We are preparing for this return to the Moon in other ways as well. Later this year, NASA will launch the Lunar Reconnaissance Orbiter, or LRO, a robotic mission to create a comprehensive atlas of the Moon's features and resources which will aid in the design of a lunar outpost. LRO will also help us to identify potential landing sites at the Poles where human missions can establish outpost roles. An _____(?) and exciting new era of humans living and working on the surface of the Moon. Once again expanding human presence beyond low-Earth orbit promises incredible future, scientific discoveries and the possibility for unparalleled international cooperation.

Early in the next decade, NASA will send additional robotic missions to the Moon to map the characteristics of the Moon's gravity, atmosphere and surface. Later in the decade, we will send landers to various places on the lunar surface to study the seismic and heat flow characteristics, seeking to unlock mysteries of the birth of our planet, some 4.5 billion years ago.

NASA, of course, will be but one of the world's space agencies orbiting and landing at the Moon. Japan and China already have spacecraft orbiting the Moon and obtaining impressive science results that would benefit future robotic and human missions.

Later this year, India is planning to launch its lunar orbiter, known as SHANDRIAN(?), and potential joint lunar missions with the United Kingdom and Germany are also under consideration.

NASA and its international partners are discussing means to coordinate all of these missions, as well as plans for later human missions, within the context of the Global Exploration Strategy. The Global Exploration Strategy is a multilateral initiative when, in 2006, out of a commitment by 14 national and

international space agencies, to identify a shared vision of space exploration. The shared vision focuses on solar system destinations where humans may some day live and work. In May 2007, these agencies from Australia, Canada, China, France, Germany, Great Britain, India, Italy, Japan, Russia, the Republic of Korea, Ukraine, the United States and the European Space Agency, released a report called "The Global Exploration Strategy: The Framework for Coordination". The Framework articulates a shared vision of space exploration focused on solar system destinations where humans may some day live and work. These space agencies are now working to coordinate space exploration planning in order to identify gaps, overlaps and synergies in their respective programmes involving destinations such as the Moon.

Importantly, this Group also is initiating discussions on potential standard interfaces that will facilitate greater collaboration among the world's space-faring nations as we seek to uncover the mysteries that exist beyond Earth's gravitational pull, mysteries that lie at Mars, on near-Earth objects and elsewhere.

Within our Space Science Programmes, NASA is planning to explore it all, from the Sun to the entire solar system to the farthest reaches of the Universe. NASA has kicked off planning on a long-awaited solar probe mission to launch within the next decade and fly within seven million kilometres of the Sun's surface. Meanwhile, at Mercury, NASA's Messenger spacecraft will enter orbit in 2011 to provide pictures of never-before-seen surface features.

Moving further out into the solar system, late last month, NASA successfully landed the Phoenix Mars Lander on the surface of Mars for the first ever mission to explore the Arctic regions of Mars. The Phoenix Mission has two bold objectives, to study the history of water in the Martian Arctic, and to search for evidence of a habitual zone and assess the biological potential of the ice-soil boundary.

In 2009, NASA will launch the Mars Science Laboratory Mission to assess whether Mars ever had an environment capable of supporting microbial life. Determining past habitability on Mars gives NASA and the scientific community a better understanding of whether life could have existed on the Red Planet, and if it could have existed, an idea of where to look for it in the future. The Mars Science Laboratory brings together an international team with instrumentation and hardware from Russia, Spain, Canada, France and Germany.

For the other planets, NASA will launch JUNO in 2011 to provide an in-depth look at Jupiter. The International CASSINI-HUYGENS Mission continues to operate at Saturn, having just been approved for a two-year mission extension. And the New Horizons Mission continues its journey towards Pluto, to make its closest approach in 2015.

Looking even further away, we anticipate the launch this month of the Gamma Ray Large Area Space Telescope, known as GLAST, an international partnership of the United States, Italy, Germany, Japan, France and Sweden, to study the high-energy spectrum of the Universe.

We also look forward to the launch of the HERSCHEL and PLANCK Missions by the European Space Agency later this year. NASA has partnered with the European Space Agency and it is contributing member States to support these two dynamic missions studying the pull Universe and the cosmic background of radiation fields respectively.

NASA plans to launch its KEPPLER Mission in 2009 to search for Earth-sized planets around neighbouring stars.

And then in 2013, the James Rudd Space Telescope, a large infrared optimized space telescope, being built through a partnership of NASA, the European Space Agency and the Canadian Space Agency, will find the first galaxies that formed in the early Universe, connecting the Big Bang to our own Milky Way Galaxy.

The James Rudd Space Telescope also will appear through dusty clouds to see stars forming planetary systems connecting the Milky Way to our own solar system.

In all, NASA currently operates about three dozen space science missions with another two dozen in development, including numerous contributions to international missions.

As we implement our Exploration Programme, NASA is also continuing to study our own home planet. Conducting research that is vital to our lives here on Earth. Based on NASA satellite data, we have not only seen the receding ice sheets of Greenland and Antarctica with a quantitative re-measure how fast these ice sheets are melting.

NASA scientists have observed in 2007 the smallest Arctic sea ice coverage ever reported and when comparing that ice coverage for the months of

September in 2006 and 2007, the loss of sea ice exceeds the combined geographical areas of California and Texas, or nearly the size of five United Kingdoms. The Ocean Surface Topography Mission, known as JASON-2 in Europe, is a partnership of NASA, NOAA, CNES and EUMETSAT. This Mission also scheduled to launch in June, follows on the previously successful partnerships of TOPAX POSEIDON and JASON-1 to help us understand and perceive the effects of the changing oceans on our climate.

NASA has 14 Earth observing satellites in orbit today, another seven Earth science missions are under development, three of which will launch during the next 13 months. And earlier this year we initiated formulation activities that are expected to lead to the initiation of five new missions to be launched before 2020 that will address high-priority research objectives.

NASA discoveries provided real benefits for people around the world. On our recent trip to Central America, I was able to see first-hand the practical applications of NASA's Earth science research and development which enables improved environmental decision-making. For example, NASA is helping the countries of Central America and the Dominican Republic with SERVIR, which is Spanish meaning to serve. SERVIR is a high-tech visualization and decision support system that integrates satellite imagery, forecast models and gathers field data to address environmental changes and respond to natural disasters such as floods and wild fires.

NASA is now working with the United States Agency for International Development, the National Oceanic and Atmospheric Administration and other agencies to provide capabilities like SERVIR to other regions of the world, such as Africa.

NASA-derived technologies also are helping people in the developing world to overcome everyday challenges. Water recycling infiltration systems engineered to sustain astronauts living on the International Space Station have been adapted to provide safe and affordable drinking water in poor or remote regions of the world where access to clean water can mean the difference between life and death.

Distinguished delegates, as the nations of the world come together to embark on the journey extending human beings further into our solar system, we will continue to realize benefits of this effort, not only in space, but here on Earth as well. The exciting journey in space that started 50 years ago is destined to continue and COPUOS will have an important role to play in this human endeavour. Let us go forward together.

Thank you Mr. Chairman.

The CHAIRMAN *(interpretation from Spanish)*: Mrs. Dale, I just wanted very briefly to thank you and to congratulate you for the extraordinary work that is being conducted by NASA over those 50 years of work that you have just presented so well to us. One does not have to be an expert to understand the mandate, the objectives of NASA, which is a model institution. We were listening most attentively when you said that this is unprecedented human cooperation, this endeavour that they are conducting.

We were all very impressed indeed by what you said and I would like to say that we are seeking to work in COPUOS precisely to have this international cooperation be of benefit not just to developed countries but also to developing countries as well, with their priority needs.

Once again, on behalf of one and all, I would like to thank you, congratulate you and ask you to convey my congratulations to all NASA staff as well.

Ladies and gentlemen, I am now going to be adjourning this meeting of the Committee but first I would like to inform you of our work this afternoon. We will be resuming at 3.00 p.m. I hope that we will be able to wind up our examination of item 5, General Exchange of Views. We will then be going on to item 6, Ways and Means of Maintaining Outer Space for Peaceful Purposes, as well as 7, which is the Implementation of the Recommendations of UNISPACE III.

We will also be hearing a technical presentation by ESO entitled "Welcome to ESO".

We have been informed that EUTELSAT will not be able to be present at this meeting of the Committee because of unforeseen circumstances which we certainly regret. This said, the Secretariat will be transmitting the statement that they had intended to present to our Committee.

Over lunch, in 45 minutes time, there will be a special activity organized which was organized by the International Astronautical Federation, which is going to be presenting various activities of the IAF. Anyone interested is cordially invited to be present.

And then at the end of the afternoon, you are cordially invited to a Reception organized by the

United States delegation, that will be in the Mozart Room of the Vienna International Centre Restaurant.

Thank you very much for your attention.

The meeting adjourned at 1.18 p.m.