

## Committee on the Peaceful Uses of Outer Space

*Unedited transcript*

568<sup>th</sup> Meeting

Thursday, 7 June 2007, 10 a.m.

Vienna

*Chairman:* Mr. G. Brachet (France)

*The meeting was called to order at 10.07 a.m.*

**The CHAIRMAN** (*interpretation from French*): Ladies and gentlemen, might I ask you to take your seats. I should like to start our meeting, that is, the second day of the fiftieth session. I now call the 568th meeting of the Committee on the Peaceful Uses of Outer Space to order. This morning, we will continue our examination of agenda item 4, general exchange of views. Time permitting, we will begin our consideration of agenda item 5, ways and means of maintaining outer space for peaceful purposes and item 6, implementation of the recommendations of UNISPACE III.

At the end of the morning's meeting there will be two technical presentations, the first, to be made under agenda item 4, by Mr. Kaku of Japan on Sentinel Asia, contributing to the disaster management support system in the Asia-Pacific region, that is, SPIDER.

The second, will be made under agenda item 6 by Mr. Sarker of the World Space Week Association, whose topic will be, the celebrations of the World Space Week in Bangladesh 2003-2006.

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

Distinguished delegates, I should like to inform the Committee that I have received two more requests seeking participation by States and organizations, that are not members of the Committee. Firstly, a request from the Government of the Republic

of Yemen and the second, from a non-governmental organization, the Centre of Human Rights and Peace Advocacy and they would both like to attend the current session as observers.

I therefore suggest that, in conformity with past practice, we invite the representatives of this State and this non-governmental organization to attend the current session and to address the Committee, as appropriate, if I give them the floor. That is, of course, without prejudice to further requests of this nature and does not involve any decisions of the Committee concerning the status of those taking the floor. It is a courtesy that we customarily extend to such delegations.

Do I see any objections? I see no such objections.

*It is so decided.*

Ladies and gentlemen, I would now like to continue our consideration of agenda item 4, general exchange of views. The first speaker on my list is the distinguished representative of Indonesia. I recognize the distinguished representative of Indonesia.

**Ms. E. ADININGSIH** (Indonesia): Thank you, Mr. Chairman. On behalf of the delegation of the Republic of Indonesia, allow me at the outset to express my delegation's pleasure at seeing you presiding over the fiftieth session of the United Nations Committee on the Peaceful Uses of Outer Space. We are convinced that, with your expertise and wisdom, you will guide our deliberations to a successful conclusion. My delegation also expresses its appreciation to the Office of Outer Space Affairs and

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

Corrections should be submitted to original speeches only. They should be incorporated in a copy of the record and be sent under the signature of a member of the delegation concerned, within one week of the date of publication, to the Chief, Conference Management Service, Room D0771, United Nations Office at Vienna, P.O. Box 500, A-1400, Vienna, Austria. Corrections will be issued in a consolidated corrigendum.



for the extensive documents it has produced to facilitate the work of this Committee.

Mr. Chairman, as has been stated on many occasions, my delegation firmly believes that, in accordance with the Space Treaty's principles, outer space should be used entirely for peaceful purposes and for the benefit of all humankind. In this context, the agenda item concerning the ways and means of maintaining outer space for peaceful uses should be considered seriously, in accordance with General Assembly resolution 61/111 of 14 December 2006, particularly paragraph 36, it is a matter of priority in our current session.

In this line, we see the usefulness for COPUOS to consider establishing practical mechanisms for coordinating and harmonizing its work with that of other related bodies, such as, the First Committee of United Nations General Assembly and the Conference on Disarmament. Moreover, we must continue to encourage the furtherance of international space cooperation, taking particular attention to the participation of developing countries, to enhance the peaceful use of outer space. My delegation would like to reiterate its views that, the United Nations Programme on Space Applications, through its workshops, training courses, seminars and meetings, has been very useful in assisting developing countries in mastering, developing and using space technology for their national interest. Therefore, we hope that, the Programme will continue to increase in the coming years.

Mr. Chairman, my delegation takes note of the report of the forty-fourth session of the Scientific and Technical Subcommittee. Regarding the agenda item of the Subcommittee, review and possible revision of the principle relevant to the use of nuclear power sources, or NPS, in outer space, my delegation is pleased to note that, at the last session of the Scientific and Technical Committee, the working group on NPS had reached a consensus to prepare and publish the safety framework for NPS applications in outer space, under the multi-year workplan 2007-2010. We are of the view that, the revision of the principle relevant to NPS in outer space is not warranted.

With regard to the space system-based disaster management support, Indonesia welcomes the establishment of the United Nations Platform for Space-based Information for Disaster Management and Emergency Response or SPIDER. SPIDER would greatly enhance capacity of the international community in providing support to affected countries in the face of disaster. On behalf of my delegation, let

me assure you of our continued support for this programme and its activities.

On the occasion of the International Heliophysical Year 2007, various activities related to the International Heliophysical Year are being conducted in Indonesia, under the coordination of the National Institute of Aeronautics and Space or LAPAN. We have submitted a more detailed report on these activities during this year's sessions of the Subcommittees.

We also take note of the report of the forty-fifth session of the Legal Subcommittee, focusing primarily on the agenda item, practice of States and international organizations in registering space objects. My delegation is pleased to note that the Legal Subcommittee agreed that the report of the working group contained in annex III, together with the first six preambular paragraphs contained in paragraph 18 of the document A/AC.105/C.2/L.266, constitute the basis for a draft resolution for submission to the General Assembly, to be agreed upon at the fiftieth session of the Committee. In this connection, my delegation feels that those elements of conclusions provided an important incentive for enhancing adherence to the Registration Convention and for establishing common practices for space and international organizations to follow in registering space objects.

In the context of international cooperation, as we have already stated in the last session of the Scientific and Technical Subcommittee, we are pleased to inform you that, LAPAN, in cooperation with the Technical University of Berlin, have \_\_\_\_\_ (*inaudible*) the first Indonesian micro-satellite, namely, LAPAN-Tubsat. The satellite was launched from Sriharikota, India, on 10 January 2007, as an auxiliary payload by Polar Satellite Launch Vehicle, C-7 launcher. It carried with it an S-band data transmission system, a high resolution video camera, a \_\_\_\_\_ (*inaudible*) video camera and a short text store and forward messaging. In the meantime, LAPAN and DLR of Germany, have been conducting joint studies on micro-satellite systems.

With the Government of the Russian Federation, the Indonesian Government has signed, on 4 December 2006, the agreement on cooperation in the field of exploration and use of outer space for peaceful purposes. In July 2007, Indonesia, in cooperation with China, will organize an international symposium on the use of electromagnetic satellites for early warning and monitoring of earthquakes. Indonesia also continues to actively contribute to the strengthening of international cooperation, among others, through the hosting of the

thirteenth meeting of the Asia-Pacific Regional Space Agency Forum (APRSAF) and the Second International Water-boosted Rocket and Poster Competitions, from 5-7 December 2006, as well as, APRSAF/UNESCO/LAPAN Space Education Seminar on 11-12 December 2006. Indonesia also actively participated in the activities of Sentinel Asia initiated by Japan and APSCO initiated by China.

With regard to Sentinel Asia, Indonesia through LAPAN, has contributed some of our remote sensing products to the network and we hope that we could come up with improvements to external drive products related to disasters in the region. On this occasion, we would like to express once again, our commitment to be the host of an international workshop in 2008, in collaboration with UNOOSA, related to space applications, to water management, environmental protection and disaster \_\_\_\_\_ (*inaudible*) mitigation. We hope to provide you with more details and invitations in the near future.

To conclude, I assure you of my delegation's full cooperation with a view to bringing about a successful and productive session. Thank you.

**The CHAIRMAN** (*interpretation from French*): I should like to thank you, Madam, for your presentation, setting up the position of the Indonesian delegation on a number of points and providing the information that was contained in your statement, with regard to current activities in Indonesia and I am delighted to note that, Indonesia is continuing to be very active in this matter. This is demonstrated by the PSLV launch vehicle launch of the satellite at the end of 2006. Thank you very much for your statement, Madam and I would now like to recognize the Italian delegation, Mr. Massimo Branciforte.

**Mr. M. BRANCIFORTE** (Italy): Mr. Chairman, allow me first of all to express our satisfaction to see you once again as leader of the Committee in this special session dedicated to the fiftieth anniversary of the space age and the fortieth anniversary of the entry into force of the Outer Space Treaty. At the same time, I would like to take the opportunity to thank you, as Chairman of this Committee, for your excellent work conducted in two years of activities, significant results of substantive progress. Allow me also to thank the Director of the Office for Outer Space Affairs, Sergio Camacho-Lara, at the end of his mandate. We all have appreciated his ability and sensitivity and professionalism in the direction of the Office. We are confident and believe that his experience will be precious and helpful to his country and for all Latin American countries.

Mr. Chairman, before moving on to the items of our agenda, I would like briefly to share with this assembly the satisfaction with two important Italian space events in the last weeks. You are certainly aware of the successful launch of the AGILE satellite by an Indian launch vehicle, on 23 April. AGILE is a star detector for the study of the universe, in particular, for the acquisition of x- and gamma rays. It is the only instrument on its own way complementary with other relevant space missions such as, PAMELA, SWIFT, and soon GLAST and AMS, we still hope. In the first phase of instrumentation testing, AGILE has captured its first gamma photon, now it is gathering thousands of photons as foreseen, unloading the data to the Malindi station in Kenya.

The second event that represents a reason of extraordinary satisfaction for Italy and the Italian Space Agency, is the first COSMO SkyMed satellite launch, which will take place today at the Vandenberg Base in California. Let me remind you that COSMO SkyMed Earth Observation Satellite Constellation is a full spacecraft dual-system. Each of the four satellites is equipped with a Synthetic Aperture Radar instrument working in X-band. The COSMO SkyMed programme represents the Italian contribution to the natural disaster management system, in particular, for the monitoring, controlling and managing of natural disaster risks such as, forest fires, floods, landslides and oil spills. COSMO SkyMed is part of the SIASGE system, which is implemented with the Argentinian SAOCOM satellites, focused to risk and disaster management.

Mr. Chairman, going back to the agenda of the fiftieth session of this Committee. My first comment and appreciation regards the special panel focused on space exploration activities. Italy is highly involved in space exploration studies and activities through the European ExoMars Programme, as is also extremely engaged in the implementation of the global exploration strategy framework with 16 other space agencies. In this direction, the Italian Space Agency, in collaboration with ESA, has hosted the third meeting of the Workshop on International Cooperation for Sustainable Space Exploration from 29 May to 1 June in Abbazia di Spineto, Tuscany.

Mr. Chairman, with regard to item 6, Italy endorses the General Assembly decision that the Committee should continue to consider ways of implementation of the recommendations of UNISPACE III, to achieve concrete and significant results. The Italian delegation also approves the decision of establishing a closer link between the Commission on Sustainable Development and the

Office for Outer Space Affairs, in order to promote the benefits of space science and technology for sustainable development.

With regard to item 7 of the agenda, Italy shares the appreciation expressed by the Scientific and Technical Subcommittee, which noted that the first meeting of the International Committee on Global Navigation Satellite Systems, focused to review and discuss matters relating to GNSS and their applications, in particular, the efficiency and safety of air transport, search and rescue, geodesy land management and sustainable development.

I would like to remark on the fruitful efforts of the Working Group on Space Debris made to drafting the space debris mitigation guidelines, finally adopted at the forty-fourth session of the Scientific and Technical Subcommittee. Italy welcomes the multi-year workplan made by the working group on the use of nuclear power sources in outer space at the forty-fourth session of the Scientific and Technical Subcommittee. Italy has answered affirmatively to the working group's request to participate in a joint expert group, in partnership with the International Atomic Energy Agency, in order to prepare and publish the safety framework for nuclear power sources application in outer space.

Concerning the matters related to the SPIDER programme in the framework of the space-based disaster management, Italy confirms its interest to support the programme, offering services and capabilities available at the ASI Space Centre in Matera and the Italian Space Centre, Luigi Broglio in Malindi, Kenya.

Let me provide you with some general scientific information in which Italy is involved in and the international scientific community is interested. The Italian Space Agency is pleased to announce the publication of the first announcement of opportunity for the demonstration of the COSMO SkyMed capabilities and exploitation for science and civilian applications, you will find all information on the ASI website. The second International Workshop on Exploring Mars and its Earth Analogues, will be held in Trento from 19-23 June, in order to investigate the surface, the geology and the geophysics of Mars, its landing sites and terrestrial analogues. A field trip to the Dolomites will be arranged to the Permian fluvial and evaporitic deposits and Triassic coastal environments. The ninth International Conference on Exploration and Utilization of the Moon, will be co-hosted by ASI and ESA from 22-26 October 2007 in

Sorrento, programme and details are available on the ASI website.

With reference to item 8 on the report of the Legal Subcommittee, the Italian delegation welcomes the results achieved by the Subcommittee during its forty-sixth session and we will share comments and consideration next week. We express our particular satisfaction noting that, the General Assembly agreed that the Committee should continue to consider the items 10 and 11 respectively, on space and society and space and water at its fiftieth session.

Finally, the Italian delegation wishes to support the candidature of Switzerland as a new member of COPUOS. Furthermore, we are pleased to inform you that the Italian Space Agency has a new President, Professor Giovanni Fabrizio Bignami, who has been nominated by the Italian Government on 13 April 2007. Thank you.

**The CHAIRMAN** (*interpretation from French*): Thank you very much, Sir, for your statement. It goes without saying that we would like to congratulate you on the excellent work of the AGILE satellite launch, last April, and we would like to congratulate you on the COSMO SkyMed launch, which is going to take place today. I would like to take this opportunity to convey my best wishes to Professor Bignami, who has just taken up his functions at the Italian Space Agency. Thank you very much for your very complete statement, I now recognize the representative of Viet Nam.

**Mr. P. HUYEN** (Viet Nam): Thank you very much, Mr. Chairman. Distinguished delegates, ladies and gentlemen, firstly on behalf of the Vietnamese delegation, let me inform you about some activities that we have conducted since the last session in the field of space technology.

In recent years, our Government has paid more attention to space technology development and application. As other countries in the region, in the last years, Viet Nam has faced a lot of natural disasters. With Asian countries and \_\_\_\_\_ (*inaudible*) COPUOS members, we have achieved a fruitful cooperation in the mentioned area and received significant support. I would like to take this opportunity of the meeting to thank all members for your kind cooperation last time. You may know that, \_\_\_\_\_ (*inaudible*) effort this year our Space Technology Institute was established by the Government and studied its activities. Its action plan is mainly as follows, a ground satellite receiving station will be put into operation by the end of 2007; launching the first telecommunication satellite in 2008

and activities preparing one micro-satellite for launching in 2010 \_\_\_\_ (*inaudible*). We do understand that international cooperation always plays a very important role for use of space technology in our country. Therefore, we highly appreciate and promote \_\_\_\_ (*inaudible*) of the experience for both formulating legal instruments, especially space law and, application of the space technology for sustainable development of the country.

Mr. Chairman, distinguished delegates, a workshop entitled, Use of Space Technology for Forest Management and Environmental Protection, coorganized by Viet Nam and OOSA, will be held in November 2007, in Hanoi, capital of Viet Nam. We are looking forward to seeing you soon at the workshop, in collaboration with OOSA we will try to set up an interesting programme for you staying in Viet Nam. Thank you, Mr. Chairman. Thank you for your attention.

**The CHAIRMAN** (*interpretation from French*): I thank Mr. Huyen for that presentation of Viet Nam's activities, we would congratulate him on setting up the Institute for Space Technology in April and we would also support you in the entry into service of the satellite receiver station and the launching of your communications satellite in 2008. I now call on the representative of Romania, Mr. Marius Piso.

**Mr. M-I. PISO** (Romania): Thank you, Mr. Chairman. Let me express, on behalf of the delegation of Romania, our satisfaction in seeing you again in the main Chair of this Committee and express my certitude that the strategic and practical objectives of COPUOS, present, future and planned, will be successfully accomplished under your chairmanship. Let me extend congratulations to the Executive, to Sergio Camacho, for the excellent management of the Committee's activities in a difficult period of changes. I would like to thank Mr. Camacho for the invaluable permanent support and wish him successful new openings.

Mr. Chairman, distinguished delegates, Romania is continuing its own space development at the national level and together with the international space community. At this anniversary meeting of COPUOS, I would like to remind you that, Romania attained the vice-chairmanship of this Committee for almost 40 years, since its beginnings, contributing in this position to some of the major achievements and making use of the Committee in developing its own international cooperation in space exploration and applications.

Within this anniversary opportunity given by this space Committee session, I would like to remind you of the structure of developments within the space political arenas since the last session. Some major space countries already promoted new national space development strategies and policies and I would like also to mention the preparation and adoption of the European Space Policy by the European Union Council a couple of weeks ago. Those facts suggest that the field of space exploration is beginning to be more and more relevant for society and we must take \_\_\_\_ (*inaudible*) arguments from drafting the future agendas and defining foundations for the role of the Committee.

Romania is continuing to support its space development and, as an ESA, European Space Agency cooperating State and a European Union member State, Romania is participating to the common European space research and development activities but is also keeping and developing its own national space programme. My country, Romania, is further recognizing the role of space activities as one of the important drivers for all science and technology-related activities. Romania is one of the countries which took a major political decision to almost triple the research and technology development public expenses, between 2007 and 2010 and, proportional contribution for space activities is increasing from 3 per cent to almost 8 per cent of the budget. The space programme is further developing, involving industrial research and academic organizations also, I would like to mention, contribution to international space exploration projects as \_\_\_\_ (*inaudible*) of the European Space Agency, as other programmes of GNES and NASA. Also applications in integrated space application as, the land \_\_\_\_ (*inaudible*) and information systems, space telemedicine, as applications of the Global Navigation Satellite Systems.

I would also like to remind you that the Romanian parliament established a subcommittee for space activities at the end of 2006. I would like also to remind you that Romania is investing in a nano-satellite mission and also in sub-orbital launchers, which are now in the testing phases. This month, my country is opening the second national research and development plan and, the government already approved the space programme within this plan. This space programme is drafted first by \_\_\_\_ (*inaudible*), the national objectives and the participation in European space missions and projects. Second, developing the national space infrastructure and human resources to reach a European average level and third, investment in some own areas of core competencies.

I would also like to mention some of our positions related to the agenda items of this session. With reference to agenda item 5, maintaining outer space for exclusive peaceful utilization of space technology, is a need and a must. Nevertheless, in today's world we are ever more convinced that science and technology should be used to enhance human security and safety. Space technology already proved its contribution to the overall mitigation of the effects of natural disasters and we should improve the mechanisms and increase the efficiency of the space tools for better warning, monitoring and prediction, the better preparedness to meet unfortunate, major disaster events.

At the same time, among the most pressing problems we are facing today, we should make use of space technology contribution, harmonizing economic development with global warming, preventing the use of advanced technology by terrorists and the controlling infectious diseases. This broader comprehensive security concept, which goes beyond military aspects and security of States needs, as a major pillar, the contribution of space activities.

Space is generating significant added value in the areas of security, as for reliable information for early warning, operation capabilities and readiness being proven by space imagery, secure and reliable communications, space-based positioning and time distribution. Considering this global significance of disaster management and security aspects of space developments, I might draw your attention to the need for a growing role of the Committee and its subcommittees, together with an adequate definition of their mechanisms in order to maintain the capability to confront with the new challenges.

Concerning agenda item 6, the opinion of my delegation is that, we should concentrate the efforts to contribute to an efficient follow-up of the recommendations of UNISPACE III and Romania is ready to further contribute support and accomplish specific projects to be defined as follow-up of the work of the action teams. I would like to recall that, Romania is co-organizing now the sixth COSPAR capacity-building workshop and summer school, during the 5-14 June 2007.

Regarding the agenda items concerning space and society, my delegation agreed with the need to develop specific action plans for incorporating outer space into education, enhancing education in space, expanding space tours for education and fostering the wide promotion of space concepts and application among social and business life.

My delegation considers that space technology should play a crucial role in the risk mitigation and the improvement of quality of life on Earth. We should generate some synergetic cooperation between national agencies and international organizations which conduct projects and assistance for disaster management and a better access to information and data and my delegation is \_\_\_\_\_ (*inaudible*) supporting the activities towards the development of the plan for SPIDER.

My delegation also agreed with the development of the theme, space and water and supports the initiatives organized by the United Nations and member States in the field.

Regarding the enhancing of international cooperation in promoting the use of space-derived geospatial data for sustainable development, our opinion included the fact that, the space assets are essential components of the information era and the recent developments and the generalization of the geospatial information systems are clearly supported by the space applications as GNSS, SatCom, Earth Observation and it is important that the global information society planners should have the requested awareness about those space tools.

My delegation will ask you for taking the floor during the specific items of the agenda where we might be concerned. Thank you Mr. Chairman and distinguished delegates for your attention.

**The CHAIRMAN** (*interpretation from French*): Thank you Mr. Piso for that very complete presentation on the activities of Romania in space. Romania, in fact, has a long tradition of application and interest in the scientific and technical world and in particular, space. Romania is now a member of the European Union and, will therefore, have the opportunity, in addition to its agreement with ESA, to participate even more actively in space activities within the European framework. I am now going to call on the representative of the Syrian Arab Republic, Mr. Osama Ammar.

**Mr. O. AMMAR** (Syrian Arab Republic) (*interpretation from Arabic*): Thank you Mr. Chairman, first of all on behalf of my delegation, I would like to convey our happiness at seeing you chairing this important Committee and we hope and trust that we will make further achievements. It is also my pleasure to convey to Mr. Sergio Camacho Lara our great appreciation for the outstanding efforts he has been exerting in the last years, we wish him both happiness and success. I would like to convey to you

and the other members of the Committee our congratulations on the fiftieth anniversary of achievements and significant developments in the use of outer space for peaceful purposes. Our congratulations also go to all of you on the fiftieth session and the fortieth anniversary of the Outer Space Treaty. We look forward to continued work and cooperation in order to enable our Committee to make every success with a view to making optimal use of outer space sciences and technology in favour of the entire territory of mankind.

The Syrian general authority for remote sensing has continued to use space data for peaceful purposes in favour of sustainable development, including agricultural and geological applications, water resources management and the monitoring of environment, rural and urban planning, as well as, projects in favour of the various government entities. Those data are used also for studies in the Syrian universities, they are used in the convening of seminars, conferences and workshops as well as the provision of courses as part of the programme for continued training. In cooperation with OOSA, as well as ESA, we have convened three workshops in 2001, 2003 and 2006. In the implementation of the latest workshop, held in Damascus, between 24-27 April 2006 under the banner, the use of remote sensing in monitoring forest fires as well as the danger of earthquakes, which come under the United Nations programme to use space data in the monitoring and management of natural catastrophes. We have used this data in order to manage those catastrophes. We have also formed a national team to monitor forest fires, we hope that these two teams will carry out their work successfully. We follow with interest the relevant international conferences, as well as, the resulting proposals and recommendations. We try to improve monitoring mechanisms and we try to exchange information with a view to making optimal use of the space technologies and remote sensing techniques. For better use of space data in various applications, especially in the developing countries, my delegation stresses the need to provide those data, especially the archived data, in a continued manner and free of charge or, failing that, at a nominal price.

Enhanced international cooperation in the use of outer space for peaceful purposes is an urgent necessity in different fields, economic, social and scientific, in favour of sustainable development. Therefore, my delegation stresses the need for the keeping of outer space for peaceful purposes and not to slip away from those purposes in \_\_\_\_\_ (*inaudible*) such as, the militarization of space or arms race in

space which are not in consonance with the purposes of our Committee.

In conclusion, I would like to convey thanks to you and to Dr. Sergio Camacho Lara, as well as, Dr. Alice Lee, Dr. \_\_\_\_\_ (*inaudible*) and Dr. David Stevens, as well as, the other members of OOSA for the dedicated efforts in order to make optimal use of space techniques in favour of development.

Thank you very much for your attention.

**The CHAIRMAN** (*interpretation from French*): I would like to thank Mr. Ammar for his statement on behalf of the Syrian Arabic Republic, he recalled the remote detection which is being carried out by your organization in Syria. I will now call on the representative of the United States, Mr. Kenneth Hodgkins.

**Mr. K. HODGKINS** (United States of America): Thank you Mr. Chairman. On behalf of the United States delegation, I would like to start by extending my sincere congratulations to you and the other members of the Bureau as you begin your last year as Chair of COPUOS. We look forward to working with you to ensure a successful outcome for this session. I would like to also express our deep appreciation to the Office of Outer Space Affairs and the staff, for their superb work over the past year and for their diligent efforts to prepare for our meetings over the coming days. At this point I would like to join those other delegations in congratulating Sergio Camacho for his outstanding accomplishments as the expert on space applications and then, later, as Director for the Office of Outer Space Affairs. We wish him all the best for the future, it has been a great pleasure to work with Sergio as a member of the Secretariat and we can only hope to see him back with us next year in a different capacity.

Since last year's session the Committee and its Subcommittees have recorded a number of significant achievements in promoting international space cooperation. This year of accomplishment is a fitting tribute as we close half a century during which COPUOS has served the world community. The fiftieth session of COPUOS is indeed a significant milestone in that the Committee, over this period, has acted as a catalyst, promoting international cooperation in space activities and fostering broad information exchange among space- and non-space faring nations on the latest advances in space exploration and the resulting benefits. This year also marks the fortieth anniversary of the entry into force of the Outer Space Treaty. This Treaty established the principle of freedom of

exploration and use of outer space by all States and created a legal framework which promotes international cooperation among States in order to share, as widely as possible, the benefits of space activities.

COPUOS, through its Legal Subcommittee, developed five treaties that were subsequently adopted. In so doing, the Committee has generated nothing less than an entirely new branch of international law. In addition, the Committee has developed and adopted several sets of non-binding principles which facilitate the safe and peaceful use of outer space.

I would now like to comment on recent activities in the United States that bear significantly on our space programme. In August 2006, President Bush authorized a new national space policy that establishes an over-arching national policy to govern the conduct of United States space activities. It has been nearly 10 years since the United States national space policy was updated. In that time, a number of domestic and international developments have changed the opportunities and challenges facing the United States, including our space capabilities. Technological advances have, without question, increased the importance of the use of space around the world. The new policy is needed to account for these changes and to reflect the fact that space has become an even more important component of United States economic, national and homeland security. The fact sheet on the policy can be found at [www.ostp.gov](http://www.ostp.gov).

During 2006, the Space Shuttle's twenty-fifth anniversary year, three missions resumed work on the International Space Station. Space Shuttle Discovery's STS-121 mission in July 2006, was the second flight to the Station since the Columbia accident in 2003. Astronauts proved new engineering designs and safety techniques and demonstrated that, if needed, the Shuttle's robotic arm could serve as a platform for emergency repairs. Discovery also delivered a new crew member, increasing the Station's crew size to three for the first time since May 2003. NASA followed up that flight with launches of STS-115 in September and STS-116 in December. The Shuttle crews delivered and attached a critical piece of the Station's girder-like backbone, including a new set of solar arrays to provide up to one quarter of the Station's power and we configured the Station's power and thermo control systems. The stage is now set for activities in the last half of 2007 that will see the Station's size and research capabilities dramatically increase.

NASA also made progress in implementing the United States vision for space exploration. In August 2006, prime contractor selection was made for the Orion Crew Exploration Vehicle, which is to be operational by 2014. Additional international conferences were carried out to enhance global understanding of the vision for space exploration, to encourage international collaboration and to exchange information on a global exploration strategy that will include both commercial and international participation for lunar science activities, lunar robotics and lunar operations and, ultimately, human exploration beyond low Earth orbit.

Last October, NASA announced plans for a fifth Space Shuttle mission in 2008 to the Hubble Space Telescope to extend and improve the observatory's capabilities through 2013. Despite the recent loss of its main camera, the Hubble continues to send back valuable science data.

The Mars Exploration Rovers, Spirit and Opportunity, have passed their third anniversary on Mars and continue their remarkable journeys. New observations by the Mars Odyssey Orbiter have captured violent eruptions to the south polar icecap of Mars. NASA's newest Mars spacecraft, the Mars Reconnaissance Orbiter, is revealing new details in the layers of Mars' surface.

As for our planetary missions, the Stardust mission completed its 2.88 billion mile round-trip journey to capture and return comet and interstellar dust particles to Earth. The Cassini mission discovered two new rings around Saturn, confirmed the presence of two other Moons and photographed a hurricane-like storm at Saturn's south pole. NASA's New Horizon mission to Pluto is just past Jupiter and will arrive at Pluto in 2015.

As part of our contribution to the international Global Earth Observation System of Systems or GEOSS, NOAA agreed last year to reposition a geostationary satellite, GOES-10, over South America, to provide better meteorological coverage for that region. GOES-10 reached its final destination at 60° West in early December 2006. The repositioning of this satellite is a key demonstration of the type of international effort needed to achieve the integrated Earth observation benefits envisaged by the Group on Earth Observations (GEO). NOAA instruments were also launched on the European Organization for the Exploitation of Meteorological Satellites, otherwise known as EUMETSAT, on EUMETSAT's Metop-A satellite in October 2006. This launch marked the beginning of operations of the initial joint polar



system, a cooperative effort between NOAA and EUMETSAT, comprised of two polar orbiting satellite systems and their respective ground segments. The joint polar system will provide and improve operational weather and environmental forecasting, global climate monitoring services and disaster mitigation worldwide and will continue long-term weather observations from polar orbit that have been provided by the United States since 1960.

The United States Geological Survey (USGS) of the Department of the Interior continues its operation of the LANDSET series of satellites which have provided scientific researchers and government decision-makers a continuous 35-year history of the Earth's surface. The Survey is also collaborating with NASA on the development of the LANDSAT Data Continuity Mission. NASA is the lead agency for the satellite's development, while USGS will be responsible for the LANDSAT Continuity Mission ground segment and post-launch operations. Additionally, through the United States future land imaging working group, the United States Geological Survey and other agencies are supporting the United States goal to transition the LANDSAT programme from a series of independently planned missions to a sustained long-term operational programme supporting science and land surface monitoring.

Once again our agenda for this session of COPUOS holds a promise of producing useful results on a number of important topics. We anticipate that there will be an extremely interesting exchange of views on the spin-off benefits of space and on strengthening the role of COPUOS in promoting international cooperation so as to ensure that outer space is maintained for peaceful purposes. My delegation is pleased to note that the Committee will be considering again this year an item dealing with space and society with a special emphasis on education. This will be an excellent opportunity for delegations to share information on national and international efforts to demonstrate to the general public how space activities enrich their daily lives.

One of the major accomplishments over the past year has been the agreement reached by the Scientific and Technical Subcommittee on space debris mitigation guidelines but this positive development has been tarnished by the intentional destruction of a satellite by the Government of China on 11 January this year. The United States is concerned about the increased risk to human space flight and space infrastructure as a result of this action, a risk that all space-faring nations share. While the United States has separately expressed its concerns about this event to

the Government of China, we think it is appropriate to comment about the event in this forum due to the Committee's long-standing interest in the mitigation of space debris. The United States has confirmed, through its space tracking sensors, that the 11 July event has created over 1,800 pieces of large space debris, the majority of which will remain in orbit for more than 100 years. Over 30,000 pieces of smaller, but still hazardous debris, were also created. We note the contradiction between China's efforts within COPUOS and within the IADC related to the mitigation of space debris and its actions taken on 11 January. The avoidance of intentional creation of long-duration space debris is one of the guidelines that we have included in the set of guidelines that will be adopted at this session. The creation of such long-duration debris, through an act that could have been avoided, makes it even more important that we conclude our work on the space debris mitigation guidelines this year.

These guidelines will not prevent the intentional creation of space debris but they will serve to provide a clear and unambiguous set of mitigation measures that can be implemented by all space-faring nations and they will make it clear that intentional creation of long-duration debris is not in the best interests of the world community. Thank you Mr. Chairman.

**The CHAIRMAN** (*interpretation from French*): I should like to thank the representative of the United States for his statement. I think I am right in saying that a launch of the Space Shuttle is due to take place tomorrow unless it has been postponed and I think we are therefore in a position to wish the United States every good wish for a successful mission. I now turn to the representative of the Islamic Republic of Iran, whom I recognize.

**Mr. A. TALEBZADEH** (Islamic Republic of Iran): Mr. Chairman, distinguished delegates, ladies and gentlemen, it is a great pleasure for me to attend this august gathering of the Committee on the Peaceful Uses of Outer Space. Benefiting from the opportunity, I wish to extend my congratulations to the Chairman, the first and the second vice-chairmen of the Committee, Mr. Brachet, Mr. Both and Mr. Tiendrébéogo. I appreciate the hard and pressing work done by the COPUOS bureau and, Mr. Chairman, that your rich experience will make this fiftieth session a full success. On behalf of my delegation, I wish to express our full satisfaction and gratitude for the extensive effort of the Director of the Office for Outer Space Affairs, Mr. Sergio Camacho and his able staff for their continuous efforts. I also congratulate, particularly for his hard work for more than two

decades in the Office for Outer Space Affairs and the directorship of the Office in recent five years.

I am pleased to join the other delegations to celebrate this fiftieth session of COPUOS as the mark of nations' interest to use and explore space peacefully. Nevertheless, believing that this human heritage belongs to all humanity and all generations and should be explored and exploited for the peace and wellness of humankind, my delegation fully supports the efforts of exploring the Moon and other planets of the solar system for the benefit of humanity and future generations. We believe that outer space should be kept free of arms and military races in full peace.

We strongly believe that space is mankind's heritage and it should remain clean of any threat against humanity and the environment. As a result, we are very much concerned about the efforts followed by COPUOS and its member countries and international bodies, in setting up the regulations for the careful use of nuclear power sources in space, as well as, other activities which could endanger humanity and life on our planet.

The important issue like degradation of natural resources, natural disasters, disease, illiteracy, deprivation, as well as, technological disasters are still the great threat against humanity and effective action is needed, to be carried out globally, regionally and locally, to encounter those threats. We believe that international and global commitment and collaboration is a great necessity for our effective contribution, while our association in COPUOS serves towards such commitment and collaboration using space science and technology with promising results and outcomes.

My delegation is pleased to announce its effective contribution to the Committee's SPIDER programme and is prepared to establish the Regional Coordination and Communication Office and in organization of regional workshops and seminars as required. Also it is worth mentioning that, in the regional scope, we follow the efforts of establishing a suitable body in Iran, that is, the Centre for Informed Disaster Management.

Regarding the implementation of the recommendations of the United Nations Third International Conference on Space Applications, UNISPACE III, we, as ever before, fully support the implementation of the recommendations and are ready to step forward, based on our capabilities and potential in this regard. We continue to support the work of the action team established by COPUOS members for the implementation of the recommendations of

UNISPACE III. Wide participation and co-sharing the Action Team on Developing a Worldwide Strategy on Environmental Monitoring, is a part of the contribution of the Islamic Republic of Iran in this connection. This is also further continued by the contribution and participation in the activities of the working group on disaster management, in particular, the DMISCO programme, that is now active under the SPIDER project.

Moreover, in capacity-building and public awareness, a wealth of effort is being carried out, almost all in the care of the Iranian Space Agency. The Agency contributes widely in promoting space science and technology applications in public, particularly among the young generation. Capacity-building in the public domain, as well as, specialized domain, is also followed up by the Agency. It provides good support to the academic sector in setting up university courses, workshops and seminars. World Space Week occasion is also celebrated, broadly supported and coordinated by the Iranian Space Agency.

On the subject of mutual cooperation with the Office of Outer Space Affairs (OOSA), it is worth mentioning that from 22-23 November 2005, Dr. Alice Lee, Chief of the Space Applications Programme of OOSA, visited Iran to negotiate the ways and means of cooperation between OOSA and Iran on tele-health using space technology. In the course of the visit, a one-day seminar on tele-health was hosted by the Iranian Space Agency and supported by the Ministry of Hygiene and Medical Education and the participation of the OOSA representative. A variety of participants, including scholars, students and experts working in the relevant fields, attended the seminar. In a meeting with the decision-makers of hygiene of Iran in the Academy of Medical Science, the representative of OOSA also negotiated the means and ways of establishing a tele-health system in Iran.

On agenda 11, space and society, we still hold the idea that, such a broad term could be used more widely, clearly wider than just education. We believe that this matter would be better referred to a task force for consideration and, as suggested before, the Islamic Republic of Iran is prepared and pleased to participate in such a task force for defining the subtitles under space and society.

We believe that fresh water resources are of great importance to humankind and its management and control for efficiently benefiting from it, using space technology, is a vital issue with promising results. In the Islamic Republic of Iran some significant projects have been carried out on water resource

management using space technology. We are ready to share our experience, in this connection, with interested bodies and organizations throughout the world, to stimulate international cooperation.

Considering the role of space law as a prerequisite for international cooperation activities, we follow up the current activities in this connection, particularly the results and outcomes of the Legal Subcommittee of COPUOS. We are prepared to be further involved with this very important issue. In this connection, the Iranian Space Agency has established a committee to develop a core for this subject. The committee is expected to play a pivotal role in promoting attention to this issue in Iran. We recently communicated with OOSA concerning holding a workshop on space law in 2007 and also submitted our request accordingly. We hope that, through the support from OOSA, we will be able to organize such a workshop as soon as possible.

The last but not least, regarding the work and effectiveness of this Committee itself. My delegation believes that it is now high time to redesign the structure and to reinforce COPUOS authorities to deal with 50 years of progress in outer space science and technology and the impact of this progress on quality of life and mankind's destination. The International Civil Aviation Organization (ICAO) is a model of an organization with the relevant authorities. As we have announced before, the Islamic Republic of Iran, as a member of the founders of the Committee, is prepared to participate in a study group in this regard.

Finally, I wish to conclude my comments by reiterating the hope that we all succeed in demonstrating that space is a mankind asset with great potential to benefit all human beings regardless of their technical capabilities. There is no reason why it should not be so if we all use outer space for peaceful purposes.

**The CHAIRMAN** (*interpretation from French*): I should like to thank the representative of the Islamic Republic of Iran for his statement. I note that Iran is paying particular attention to the matters of space law and I have no doubt that OOSA will be able to provide assistance in that regard, as required. I now recognize the representative of Pakistan.

**Mr. A. SIRAJ** (Pakistan): Thank you, Mr. Chairman. Mr. Chairman and distinguished delegates, it is my privilege to make a statement on behalf of the Pakistan delegation at this fiftieth session of the United Nations Committee on the Peaceful Uses of Outer Space. My delegation wishes to join other

member States to congratulate you on presiding over the affairs of the Committee as its current Chairman. We also appreciate the efforts that have so far been made by the Committee on the Peaceful Uses of Outer Space and its two subcommittees in resolving the various problems and issues related to space science, space technology and their applications for peaceful uses of outer space. I would also like to take this opportunity to sincerely congratulate Mr. Sergio Camacho for the excellent work he has done during his tenure as the Director of OOSA. His contribution to COPUOS, as indeed, to the promotion of the peaceful uses of outer space, will always be remembered. My delegation wishes Mr. Camacho a very successful and satisfying future.

Mr. Chairman, as has been mentioned by many delegates, the year 2000 is significant as it marks half a century of human efforts in space, beginning with the launching of Sputnik. The rapidity of subsequent space-related activities, a mind-boggling speed with which space applications have been developed, the ubiquitous presence of space applications in our daily lives and, the expanding membership of exclusive space club by relatively less-developed nations, is not only testimony to the efforts of space scientists and technologists but also of the United Nations \_\_\_\_ (*inaudible*). The Outer Space Treaty, of which we celebrate the fortieth anniversary and the 50 years efforts of the UNCOPUOS have, by and large, managed to ensure that outer space, as a common heritage of all mankind, is promoted and used for the well-being and prosperity of humanity. While we should feel happy that thus far, space has neither been monopolized nor militarized, the future seems less certain. Any efforts to militarizing space will destabilize the status quo, leading to an arms race in space, which will be to the detriment of peace, stability and prosperity on Earth. If we all wish to continue to use space for the combined benefit of the entire human race, we have to strive hard, through this Committee, to dissuade any nation that wishes to use space for non-peaceful purposes from doing so. There is also a need to resolve the long outstanding issue of the delimitation of outer space and a just and equitable use of the geostationary Earth orbit by all nations.

My country is situated in a zone which is vulnerable to natural hazards like earthquakes, tsunamis, floods, drought and desertification, we therefore welcome any initiative that can help prevent and mitigate natural hazards. We congratulate UNCOPUOS at the establishment of the United Nations Platform for Space-based Information for Disaster Management and Emergency Response, SPIDER, and commend both China and Germany for

the contribution to SPIDER by offering to provide regional offices in Beijing and Bonn respectively.

As a developing nation striving to develop space technology, we are alarmed at the rising volume of space debris and are supportive of any efforts that would help contain this menace. I must congratulate UNCOPUOS for taking cognizance of the issue and acknowledge the contribution of Scientific and Technical Subcommittee's working group on space debris, for their valuable work in developing the space debris mitigation guidelines. Pakistan eagerly seeks and promotes cooperation in space technology and applications, both at the international and regional level. At the regional level, Pakistan became the founding member of the Asia-Pacific Multilateral Cooperation in Space Technology and Applications (AP-MCSTA), and is one of the first countries who ratified its membership of the Asia-Pacific Space Cooperation Organization. More recently, in April this year, China and Pakistan have signed a broad-ranging agreement on cooperation in space technology and applications. One of the first manifestations of this cooperation is likely to be collaborative development of our communications satellite to replace Pakistan's present leased satellite at 38° Longitude by the year 2010. Space applications are finding growing acceptance in Pakistan and have entered into the operational phase. Space-based systems are now contributing to innovative solutions in agriculture, water resource management, global navigation satellite system applications, education and tele-health. Pakistan has greatly benefited from international and regional programmes for capacity-building and training in space applications and looks forward to cooperation with other countries in space science and technology. Thank you, Mr. Chairman.

**The CHAIRMAN** (*interpretation from French*): I should like to thank you for your statement on behalf of Pakistan. I take note of the fact that your organization continues to be very active and I had the opportunity to become familiar with its work, a little while ago and I am delighted to see that these activities are being pursued, together with international cooperation in the Asia-Pacific region in particular. I should now like to recognize Mr. Raimundo González on behalf of Chile.

**Mr. R. GONZÁLEZ-ANINAT** (Chile) (*interpretation from Spanish*): Thank you very much, Mr. Chairman. In this general exchange of views I would like to deal with that but I am talking now about your last statement that I had the pleasure to be invited by Pakistan. I would like to share that because we have not had the privilege that we have good relations with

them and I am sure that it is going to be part of the task of our future presidency and tour, within the framework of GRULAC, try to find relations with all countries in the world. We are going to consolidate what has already been done. I think this is already done in Quito but I recall, I remember that there was great pleasure expressed at being with us in Quito, this is a path we should follow. I think that it is the policy of the Chair to have a universal contact with all the countries and therefore, as you pointed out, this is a way forward and it is going to be in a document which we can think about, be a good basis for dealing with matters and it is important to have presence in the different countries and regions. I have had personal conversations with the future Chair, Ambassador Arévalo, but I am sure you agree with everything and we have been talking about all this within GRULAC and it is important to have international cooperation here. I would also like to refer, on this subject, on the very complete presentation by the United States. There are two topics here I would like to refer to.

I had the pleasure and privilege of taking part in a meeting in Washington in regard to a repositioning a geostationary satellite, which covers countries like mine. This has very important effects for society in the whole area of this geostationary placing and the help that the United States Government is giving us and has given us, is very important and this is also something that I would like to stress. He mentioned the concern for mitigation of space debris. We have a difference of shades of meaning here. I am thinking this is something for the Scientific and Technical Subcommittee for the guidelines, I do not know whether Spanish is sufficiently rich for this, but we want a policy for mitigation of space debris. We are coming to a fundamental stage of things, which is fundamental for developing countries, we need the right legal framework which would reflect what has been discussed, what has been agreed, in the Scientific and Technical Subcommittee. If we remain only in a structure which, by its very nature, is voluntary and, as the name indicates, its guidelines for dealing with space debris, obviously, then the developing countries are going to be disadvantaged, so what we are going to do is to insist in the Legal Subcommittee that this topic be recognized, legislatively speaking. We are facing a situation now which is rather complex and perhaps those who are doing studies in the European space world, they are in contact with Latin America, are dealing with this matter because I was at the fifth meeting of the Conference of the Americas on space and there, some fundamental concepts were brought up, as to how to tackle the topic on the one side, space debris and, on the other side, how to comprehensively deal with the whole question of space law. This is

something that needs to be brought up to date in respect of technological advances and progress and we are rather concerned about the statement that is going to be made by the Director of the Centre on this subject. This is something which was, in fact, brought up at Quito and discussed. I think it is worth recalling this that, yesterday, we would like to ask for help from the delegation of Austria, who were one of the founders of this Committee and who, thanks to their interest in the Office here in Vienna, we would ask them to help us and to collaborate with us in supplying us with the fundamental elements which relate to the mandate of this Committee. We cannot just go on listening to statements because when a topic does not please a delegation and they do not talk about it, so we are in a sort of nebulous area, we want to know what the mandate is, even though we \_\_\_\_\_ (*inaudible*), so perhaps the Austrian delegation could play a fundamental role here, they have a very important delegation taking part here and, perhaps, Belgium could also help us because they were active on the Legal Subcommittee and other countries too, together with the Secretariat, to then outline what is the mandate of the Committee. This is a formal request by delegations that the mandate be distributed or what are the documents which, in fact, underlie this Committee, in terms of its mandate.

Finally, the question which is perhaps trivial but we feel is important and that is, there are bulletins in the room which seem to refer to the United Nations space work here, I think there is a fairly clear idea of involving the Government of Chile in this subject so we have the photo of our Chairman, Ministry of Foreign Affairs and so on, and all other people who might be present here, so perhaps this topic could be dealt with, unless you think otherwise, but I think under agenda item 3 or under, other business, to explain very briefly who is at this conference. I think the distinguished delegate of Colombia mentioned this yesterday, this conference was a basis for the PrepCom of at least two conferences, possibly even three, Santiago, I am not sure of that but anyway, certainly there were two PrepComs, Cartagena de Indios in Colombia in 2002 and Quito, Ecuador in 2006 and likewise, under that conference, we explained yesterday I think, the Group of Experts who basically played a vital role in that conference so having said all that, Mr. Chairman, thank you very much.

**The CHAIRMAN** (*interpretation from French*): Thank you very much, Mr. González, for your statement I think we have noted your request to have a clarification on the mandate of this Committee, where we are going to see with the Secretariat how to meet this request. I think we have come now to the end

of the statements by member States this morning, we now have three statements by observers, these are non-governmental organizations. I am going to call now on Madam Agnieszka Lukaszczyk, Space Generation Advisory Council, she represents them, she has the floor.

**Ms. LUKASZCZYK** (Space Generation Advisory Council): Thank you Mr. Chairman. We are pleased to see you in the Chairman position again and we are looking forward to work with you. The Space Generation Advisory Council (SGAC), is representing youth and young space professionals to the United Nations, States and space agencies. The SGAC has been given an opportunity to provide a perspective of the space generation, students and young space professionals from around the world, to the process of producing a vision for the next 50 years of space exploration.

This statement outlines the response of students and young space professionals, coordinated by SGAC. It follows consultation of the SGAC global community through a series of meetings, online discussions and a global online survey. Given the recent strength of the SGAC network, born from the UNISPACE III conference in Vienna in 1999, there has been a wide and dynamic response throughout the space youth network in the world. The results are five key recommendations for agencies and international organizations. This is what young people feel is important.

- Attention to sustained exploration of the Moon. There was an overwhelming response in favour of exploring the Moon, using it as a test-bed for exploration of other solar system bodies, development of a permanent Moon base and development of a cis-lunar economy by extraction of different resources in order to make exploration cost effective. A large majority of the responses noted that the first priority of resources used on the Moon should remain with providing with means to sustain life supplies, as well as, the well-being of the lunar explorers.
- Furthering exploration of the solar system. Sustained exploration of the Moon as well as a continual human presence in near Earth orbit should be used to yield new and improved technologies that can help foster exploration of the planetary bodies further afield. When asked of which technologies should be given the highest priorities, the majority, 49 per cent, felt that life-support systems that work longer and more efficiently would be beneficial for Mars exploration. There was also a strong mandate for

exploring Mars in support of extending science research to allow us to better understand our existence in a three body system.

- Making human presence in the near Earth space. There was strong support for completion of the International Space Station, prior to a reassessment in order to maximize its use. However, it seems that a large amount of the respondents were not convinced that this would happen, as 54 per cent of them felt that there is a need for a new station to be built cooperatively by governments and private industry. This human outpost can be used as a docking station for further missions, to maximize science benefits and cost effectively carry out exploration and to pay more attention to safety and reliability.
- Space governance. Space efforts need to be led by all nations collectively, including countries that are space-faring and are under the umbrella of international organizations such as the United Nations. Amongst most significant revisions to the Outer Space Treaty, there need to be inclusions for registering defence-related missions in order to reduce the secrecy and security threats that still surround business within the space environment. It was also noted that, important revisions for the Outer Space Treaty are needed, in particular, those pertaining to the destinations of near-term exploration, such as cis-lunar, moon surface and Mars under this new governance.
- There was a strong support for internationally cooperative efforts for space exploration and to help humanity benefit from the coordination of research efforts from all countries.

In conclusion, we believe that ideas of young people should be heard in the consultation process since we represent the future of the space industry. Our recommendations combine the idealism and vision of young people with the realism gained from our first steps within the space sector during our studies and employment. As a link to the next generation, we provide proposals aimed at helping to curb falling numbers of students within science and engineering in tertiary level education. We have provided a framework of recommendations that we believe can enable space to best be used to benefit humankind.

Last but not least, I would also like to take this opportunity to thank Dr. Camacho for his active involvement in youth space activities around the world. We are convinced that, without his support and guidance, SGAC would not be the strong organization that it is today. I would like to stress that, we do not

make this statement because it is the appropriate thing to do but because we are deeply honoured to call such a distinguished person as Dr. Camacho, a supporter of the youth space vision. It is very important for young people to have role models and Mr. Camacho is a perfect example of such. Thank you.

**The CHAIRMAN** (*interpretation from French*): I would like to thank Madam Lukaszczyk for that statement, I think that our Director of space affairs is particularly touched by the compliments which come to him from this younger generation, but Sergio Camacho is still very young anyway. I will now call on the President of the International Astronautical Federation, you have the floor.

**Mr. J. ZIMMERMANN** (International Astronautical Federation): Mr. Chairman, on behalf of the member organizations of the International Astronautical Federation, I am delighted to participate in this historic fiftieth session of the Committee on the Peaceful Uses of Outer Space and to have the opportunity today to make some brief remarks.

The IAF is an association of space agencies, companies, professional societies and research organizations. We are global with approximately 170 members in 45 countries. Our membership is growing, some of the member organizations participating in this session will join IAF during the coming year. In doing so, will work with us in promoting space activities and space cooperation at the global level.

During the past year, we have been particularly active in promoting information exchange on space activities worldwide, we are doing this by organizing, with important support from the International Academy of Astronautics and the International Institute of Space Law, annual congresses held in various locations throughout the world. Our 58th International Astronautical Congress will take place in the beautiful city of Hyderabad, India from 24-28 September 2007, with the theme of, touching humanity, space for improving the quality of life. We are also planning international astronautical congresses in Glasgow, Scotland in 2008 and in Daejeon, Korea in 2009. I encourage the delegates of this Committee to join us this September in Hyderabad and in 2008 in Glasgow and again in 2009 in Daejeon.

We also promote public awareness of the accomplishments and the potential of space. In partnership with the United Nations Office for Outer Space Affairs and with the active support of your Chairman, Gérard Brachet, the IAF organized a very special celebration of the fiftieth anniversary of the

launch of Sputnik, the fortieth anniversary of the Treaty on the peaceful uses of outer space and the fiftieth anniversary of the International Geophysical Year. Four distinguished speakers from Russia, the United Kingdom, India and the United States, reflected on the achievements in space during the past 50 years and looked ahead to what can be anticipated in the coming half century. Approximately 700 persons, many of whom contributed to the achievements of the past 50 years, attended this special celebration, held at UNESCO in Paris in March. This event is preserved in video and in written form on our IAF website.

Our Federation is also focusing on topics of growing interest to space-faring and non-space-faring nations around the world. We are, for example, organizing a special seminar on the Global Earth Observation System of Systems (GEOSS) and global change. This seminar will discuss the accomplishments of space systems in understanding changes to our planet's climate and will consider potential space systems investments that will help us all to meet future challenges. We also wish to emphasize the shared commitment of government, of industry, of research institutes and of professional societies in addressing this very important issue. This timely seminar will feature four speakers from the Group of Earth Observations, the Committee on Earth Observation Satellites, the Japanese Aerospace Exploration Agency, as well as from European and American space companies. It will again be held at UNESCO headquarters in Paris on the evening of 17 June 2007 and will be followed by a reception and a dinner. This date is just after the conclusion of this Committee's session here in Vienna and just before the beginning of the Le Bourget air show in Paris. Delegations interested in identifying possible government, research institute and industry participants from their countries are cordially invited to contact me or one of my IAF executive secretariat colleagues who are here in Paris, so we can arrange for the appropriate invitations to be issued.

In addition, the IAF promotes increased use by developing countries of space systems for human development. Each year, our Federation in the United States Outer Space Affairs Office, organize a workshop on the use of space technology for sustainable development. This year's workshop will take place in Hyderabad, from 21-23 September, it will focus on the application of space technology for food security. Our colleagues in the National Remote Sensing Agency of India are hosting the event and are actively supporting this workshop. A special feature of this year's workshop is a round-table discussion we are organizing, involving the heads of space agencies and

senior officials in developing countries to consider future uses of space systems for sustainable development. Some of the delegates in this room may be interested in attending our planning meeting for this workshop which will be held here, on the margins of the COPUOS meeting, at 1300 tomorrow afternoon.

Finally, our Federation promotes the development of a highly motivated, internationally knowledgeable workforce. Looking ahead to the coming half century, it is very clear that the nations pursuing space activities will benefit from highly skilled, internationally sophisticated individuals. With that in mind, the IAF has initiated a new young professionals programme, under which, those who are beginning their careers can gain experience and build contacts at the global level. This new programme, introduced at our last congress in Valencia, Spain, complements and builds on, the Federation's highly successful student programme which was initiated nine years ago with the support of the European Space Agency. The IAF is pursuing its young professional and student programmes with the involvement and the active support of the Space Generation Advisory Council, established during UNISPACE III. The SGAC also holds an annual symposium in conjunction with our yearly congresses.

Mr. Chairman, distinguished delegates, colleagues, some of you will note that this brief report on the activities of the Federation identifies a number of new projects. As we pursue these activities, the IAF will work very closely with the Outer Space Affairs Office, with this Committee and its subcommittees and with the participating delegations to pursue topics of common interest. In that regard, I am pleased to take note of the working paper prepared by the Chairman on the future role and activities of the Committee on the Peaceful Uses of Outer Space. This paper identifies a number of specific areas where the IAF can support the work of the Committee. I am very happy to confirm that our Federation welcomes and, if the Committee so desires, will actively support these proposals. Recognizing the IAF's role as a non-governmental organization, I look forward to identifying still further areas where the Federation can support the work of this Committee and, in doing so, promote space and space cooperation at the global level.

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

**The CHAIRMAN** (*interpretation from French*): I thank the speaker for that statement and I thank him for the description of the many activities

carried out by the International Astronautical Federation. Of course the annual congress that they organize and, this year in particular, with much support, even major support, from our Indian friends and I am very happy to be able to take part in the Hyderabad conference which will be held in September. I would also like to thank him for the kind words he spoke in respect of the support that could be given by them to the Committee's work, to the extent that the Committee will solicit such support, once more thank you.

We now have two requests for the floor, there is a request by Mr. González of Chile and then the gentleman from Colombia.

**Mr. R. GONZÁLEZ-ANINAT** (Chile) (*interpretation from Spanish*): Thank you, Mr. Chairman. The advantage of this interchange of opinions is that we should be consistent with the thematic subject, that we exchange views and this Committee has seen the arrival here of distinguished representatives of non-governmental organizations and other international organizations as observers, in general, who have extended a great list of their achievements here and I was very impressed by the statement made by the speaker from the International Astronautical Federation. Most of the topics he mentioned have direct connection with the developing countries and the question of food safety is one of the areas and mention also of another important topic. I understand that this type of event, which are applied essentially to the developing countries and which come under the Millennium Goal framework, are prepared in such a way so that the representatives of the developing countries could participate in them globally. Through you, might I ask whether there is some kind of fellowship or financing, so that the beneficiaries of those would have a real possibility of participating in the congresses which he referred to.

**The CHAIRMAN** (*interpretation from French*): I thank you for that question, Mr. González. Perhaps I will pass the floor right away to the representative of Colombia and then I will come back to the question you have put to the President of IAF.

**Mr. C. ARÉVALO-YEPES** (Colombia) (*interpretation from Spanish*): Thank you very much, Mr. Chairman. The truth is that, we do not get a feeling of optimism in this whole area of space activities and we have had that feeling from the beginning. It has always been characteristic of the IAF to involve us in many aspects of things which, very often, we do not cover at all in COPUOS, so the congress that they are organizing, as a unique space and I think globally

speaking, this is the place or that is the place, where the greatest interrelationship between the private sector, the non-governmental sector and the governmental sector can take place. This is what happened in Valencia, for example, the levels of cooperation with COPUOS are obvious here, principally, the co-operation which takes place in respect of promotion of technologies in space for the developing countries, this was the case in Valencia too and which will be the case in Hyderabad and I am very impressed by the level of organization which the delegation of India has always shown for this congress, which I am sure is going to be supremely successful.

The question of food safety is something which is of enormous relevance and will be in our future activities and so we support the delegation, that is to say we, in Colombia, we support this event most firmly. The whole topic of young professionals and students is very important too and I associate myself with the concern of the Ambassador of Chile, when he wonders, how can this very fine student and young professional programme be linked up to geographical possibilities, particularly for the developing countries. There is a very important thread here which we can continue to work on and we all hope that this programme can be extended and enhanced. Thank you very much.

**The CHAIRMAN** (*interpretation from French*): I would like to thank Mr. Arévalo for his statement and essentially we heard support in that statement, for the statement made beforehand, by the Chilean ambassador. I would like to say that with regard to the Hyderabad conference, to take place later this year, my task has been to arrange one of the plenary sessions and the topic is, the role of the United Nations in space development and I scarcely need to say that I immediately asked Sergio Camacho to take part in that plenary session. In addition, I contacted UNESCO, ITU and WMO, these are very important organizations in their respective areas when it comes to space development.

Might I come back to the President of IAF perhaps to take up on this specific question of funding support so that young people, in particular, from developing countries can take part in these events. You have the floor.

**Mr. J. ZIMMERMANN** (International Astronautical Federation): Thank you, Mr. Chairman and also I wish to thank the distinguished colleagues for their additional interventions on this subject. With regard to the overall congress, as many of you know, we do have a programme that is administered by the



Office of Outer Space Affairs, to facilitate the participation of representatives from developing countries in our congresses. Our organization is a very small and modest one but we, in fact, contribute to the funding of that activity. You have asked us and given us an additional challenge, however, which I take very personally, which has to do with how we can facilitate greater participation among students and young professionals from developing countries in our congress. I first wish to tell you that, much to my delight, we have such participation already and I am always amazed at how the young people find ways to make it possible to come to our congresses. Our colleagues in the Space Generation Advisory Council have been very helpful in helping us with that but the initiative of the individuals is remarkable. Nevertheless, you have put down a challenge which I accept, that we will enter into a dialogue and we will explore what we can do, in terms of a programme, to facilitate greater participation in our congresses and specifically in our young professional and student programmes by young people from developing countries. It may take us a little time, I am sure you all understand that these challenges cannot be always accomplished in a matter of days but we will pursue it, initially with regard to the Hyderabad congress and, over time, to establish a longer term programme that will facilitate such participation. I share your view that our future is in our young people, our young people must think globally and when they think globally, they must think in the work and build relationships with people from all over the world. We accept the challenge and I will report back to this Committee a year from now on how we are doing.

**The CHAIRMAN** (*interpretation from French*): I should like to thank the President of the International Astronautical Federation for his reply. You can thank me, Sir, to keep the pressure up over the next 12 months and to keep you to your promise to come back to us with positive results in a year's time. I should now like to turn to the representative of the International Society for Photogrammetry and Remote Sensing, Mr. Dowman.

**Mr. I. DOWMAN** (International Society for Photogrammetry and Remote Sensing): Mr. Chairman, distinguished delegates, I would like to thank you for the opportunity to participate in the fiftieth session of the Committee on the Peaceful Uses of Outer Space under your distinguished chairmanship. We congratulate the Committee on reaching its fiftieth session and tackling many important topics over this period. We also commend the Committee of the Office of Outer Space Affairs on the exhibition, 50 years of space achievements and, on the high standard of the

exhibits. We also wish to thank the Director and staff of the Office of Outer Space Affairs for their work in the area of disaster management and in all other areas of work to support the use of space data for the benefit of society and I would like to join with other delegates in thanking, particularly, Dr. Sergio Camacho for his contribution in this and for his outstanding efforts as Director of the Office.

As a non-governmental, international organization devoted to the development of international cooperation for the advancement of photogrammetry and remote sensing and their applications. The International Society for Photogrammetry and Remote Sensing (ISPRS) wishes to bring to your attention some of the activities of ISPRS during the past year which are relevant to the deliberations of COPUOS and to comment on the agenda items which are relevant to ISPRS.

We note the continuous activities of COPUOS in implementing the recommendations from UNISPACE III. We also note the continued activities in the Group of Earth Observation (GEO). ISPRS is a participating organization in GEO and is active in the committees and task teams of GEO. We note that many organizations, including OOSA and the Committee on Earth Observation Satellites, will be participating in the implementation of the Global Earth Observation System of Systems (GEOSS). Many of these activities overlap with the recommendations of UNISPACE III and we urge the Committee to ensure that these activities are coordinated and we note that there are a number of developments which indicate that this is indeed happening.

ISPRS believes that one of the most important components of the implementation of the Global Earth Observation System of Systems is capacity-building. There is much to gain from coordinated efforts in this area and ISPRS has combined its commitment to GEO and its mission of promoting Earth observation to developing nations, particularly in Africa, by co-sponsoring the Institute of Electrical and Electronical Engineering (IEEE) and the Open Geospatial Consortium (OGC), in providing workshops as a forum for discussing the development and operational issues of an advancing global information system supporting national, regional and global decisions impacting society. In 2005, ISPRS supported a workshop in Pretoria, South Africa and one in Goa, India in 2006. In 2007, we will organize workshops in Costa Rica, Burkina Faso and Kuala Lumpur, all associated with remote sensing and GIS conferences. We would particularly like to thank OOSA and the Programme Officer for Outer Space Affairs for their support for

this activity. ISPRS has also organized sessions on capacity-building at the Conference of African Association of Remote Sensing of the Environment held in Cairo last November and the Map World Forum held in Hyderabad, India, in January this year. We have also organized the second International Symposium on Geo Information for Disaster Management and the similar meeting in Toronto.

I would like to add, following up the previous comments from the floor, that ISPRS has a foundation which has been established specifically to support young people for participation in these conferences and most of the events which I have mentioned, we will be providing funding for young scientists and students to attend these meetings.

I would also like to mention that ISPRS is active with the International Council of Science (ICSU), where the Group of Geo Unions is coordinating activities on environmental topics, particularly natural and human-induced hazards and disasters and on health and well-being. These are important interdisciplinary initiatives which could make wide use of space technology and data from satellites to make a significant contribution to the development of the use of Earth observation. ISPRS is also involved in the International Polar Year and is leading a project on the use of historical image data to monitor the polar icecaps.

In July 2008, the twenty-first congress of ISPRS will be held in Beijing, China, all aspects of the acquisition, management and application of Earth observation will feature in the programme. We welcome all delegates to COPUOS to that congress. A second announcement has just been published and is available on our website.

Mr. Chairman, ISPRS welcomes the additional agenda item on the use of space-derived geospatial data to sustainable development. This is clearly an important topic and many of the activities of ISPRS and other international organizations, which have been referred to above, are related to this topic. We look forward to a discussion on this topic and to supporting the workplan when developed. ISPRS will also be pleased to take part in any activity which the Committee decides to undertake on the contribution of satellite technology to sustainable development, as proposed by the working group, submitted by the chairman of the Committee.

Mr. Chairman, distinguished delegates, I appreciate this opportunity to report to you and present the activities and goals of ISPRS. I am sure that the

activities of ISPRS will contribute to the work of COPUOS and I look forward to reporting further developments in the future. Thank you.

**The CHAIRMAN** (*interpretation from French*): I should like to thank the President of ISPRS for his statement. The organization clearly continues to be extremely active and this Committee is very grateful to ISPRS for being so active in the Scientific and Technical Subcommittee meetings and, indeed, in the plenary that we have every June. I am delighted to note that the next ISPRS congress will take place in Beijing in 2008 and we wish you every success in your preparations for that congress.

Distinguished delegates, the time is now 12:10, I therefore deem it time to turn to our two technical presentations for the end of this morning's session and I will now therefore give the floor to Mr. Kazuya Kaku from Japan. His presentation will be on the Sentinel Asia contribution to disaster management support system in the Asia-Pacific region. I would ask presenters to be so kind as to limit their presentations to a maximum of 20 minutes, so that there will be an opportunity to hear the second presentation, which is scheduled for this morning's meeting. I recognize Mr. Kaku, you have the floor.

**Mr. K. KAKU** (Japan): Thank you, Mr. Chairman. Distinguished delegates, I am Kazuya Kaku of the Japan Aerospace Exploration Agency. It is a great honour for me to have an opportunity to talk to you today about the Sentinel Asia project on behalf of the Sentinel Asia community. You will see on the screen the Sentinel Asia website which was set up just half a year ago. Briefly speaking, Sentinel Asia consists of two kinds of activities, one is to provide disaster-related information in the Asia-Pacific region, such as satellite images and satellite data products through this website. The other one is to develop human resources and human network to utilize the information provided by this website.

Firstly, I would like to tell you about Sentinel Asia, the background, philosophy and explain in more detail about the different organizations that make up the international community framework. Statistics show that Asia is being seriously damaged by natural disasters. In this chart, the red part is the ratio of Asia in the world. For example, the number of disasters in Asia is 37 per cent in the world, whereas, victims amount to 89 per cent. The Asia-Pacific Regional Space Agency Forum (APRSAP), was established in 1993 to enhance the development of space programmes in the Asia-Pacific region and promote regional cooperation in the field of space technology and its

applications. APRSAF was the springboard for Sentinel Asia, in APRSAF-12, which was held in October 2005 in Kitakyushu, Japan. The discussion was taken to initiate a pilot project in order to contribute to disaster reduction in the Asia-Pacific region using space technology. The Joint Project Team (JPT) was organized to initiate Sentinel Asia in February last year. After that, last October, Sentinel Asia went into operation. As a basic concept, we have three things, firstly Sentinel Asia is a contribution to disaster management by the space community. Secondly, our approach is step by step and Sentinel Asia is the first step as a pilot project. Thirdly, Sentinel Asia relies on the \_\_\_\_\_ (*inaudible*) initiative of participating organizations.

Sentinel Asia consists of whole communities, a space community provides satellite images and remote sensing technology. Digital Asia provides information sharing platform on the Internet. Disaster reduction community, represented by Asian Disaster Reduction Centre (ADRC), is a user for us. From this community, the Joint Project Team (JPT) is organized to promote Sentinel Asia project. Now, JPT consists of 52 organizations from 19 countries. JAXA is the secretariat of JPT. Involvement of the disaster reduction community in Sentinel Asia is essential for our activity. ADRC was established in 1998 in Kobe, Japan. It promotes multinational cooperation for disaster reduction in the Asia region, it has 25 member countries. Digital Asia is promoted by Keio University in Japan as one of academic frontier projects of MEXT, Japan.

Next, I will explain our main activities in more detail. The main activities of Sentinel Asia consists of four categories, emergency observation in case of major disasters in the Asia-Pacific region is carried out by JAXA ALOS, Advanced Land Observing Satellite and others, based on observation requests from ADRC members and JPT members. Besides emergency activities, we are going to do routine activities focusing on \_\_\_\_\_ (*inaudible*) disasters such as, wildfire and floods. Along with information and data providing activities, capacity building to develop human resources and human network is essential for Sentinel Asia to utilize the information and data provided by Sentinel Asia. This is \_\_\_\_\_ (*inaudible*) of emergency observation requests from ADRC members and deputy members are passed to JAXA through ADRC. ADRC and JAXA study the necessity of emergency observation based on collected information about the disaster, such as, state of disaster, expected damage and so on. After emergency observation, images observing the damaged area are up on the Sentinel Asia website, together with archived

images recorded after, if available. \_\_\_\_\_ (*inaudible*) camera images taken by onsite disaster agencies or \_\_\_\_\_ (*inaudible*) are also up on the Sentinel Asia website.

Sentinel Asia wildfire monitoring provides MODIS hotspot data on GIS (Geographic Information System). This year we are conducting a validation campaign in order to validate and improve the hotspot data \_\_\_\_\_ (*inaudible*). This is our operational goal of Sentinel Asia wildfire control initiative to establish operational cycles including fire fighters. Sentinel Asia flood monitoring provides precipitation data on GIS and satellite images observing inundated areas.

Next, I will tell you about information provided by Sentinel Asia. Sentinel Asia provides various data from space and ground, related to disaster, through the website such as, disaster information, satellite images before and after disaster, together with detailed map and social, economic data. Data camera images of damaged areas are also provided. I will show some examples of data by snapshot of the website. This is a list of disaster information, which is provided by ADRC. This is a photo of a typhoon in Viet Nam, Da Nang city, last October. This is a ALOS/PALSAR imagery. PALSAR is a radar sensor on board EOS. The right image is during a flood in Thailand last October, the left one is before the flood. Comparing the two images, the black areas of the right image will show inundated areas. The right image is the same image of Thailand, the left image is land cover data of the same area. In this case \_\_\_\_\_ (*inaudible*). This is hotspot data as gathered by MODIS, on board NASA Aqua and Terra satellites. This precipitation data provided by GFAS, a Global Flood Alert System.

Next I will tell you about information sharing platform. Sentinel Asia uses Digital Asia as an information sharing platform. Digital Asia is an Internet-based GIS system and it deals with various kinds of data, such as, natural and social data on the Internet, in order to establish strategic planning and risk management in Asia. Those data consist of core data stored in Keio University and externally dispatched data in each organization. All data can be managed by the Digital Asia server in Keio University and processed and can be accessed by anyone in the world, through the Internet.

Next, I will explain about operational system so far. After the start of operations last October, several emergency observation by ALOS have been performed as listed here. I will show some images about the mudslides at the Mount Mayon in the Philippines. Information about this disaster mudslide in the

Philippines is integrated in this page of the website. A list of satellite images and detailed camera images are shown on a detailed map. The right image is observed by ALOS after the mudslide happened, the left one is observed by LANDSAT before the mudslide. Comparing the two images we can find the mudslide area. This is a data camera image of the damaged area, the railway is destroyed.

Finally, I would like to explain about our future plans. As a short-term plan, we have two major items, one is to increase satellite data provider for Sentinel Asia, the other, is start capacity-building programmes and outreach programmes to end-users. As a long-term plan, Sentinel Asia is a pilot project conducted as a first step in 2006 and 2007 this year. Sentinel Asia will be reviewed at the next Joint Project Team meeting and APRSAF meeting, towards the next step. Through half a year's operation we have learnt many valuable \_\_\_\_\_ (*inaudible*). We have been able to have a good human network of the space and JAXA communities through actual operations and we will soon be able to provide more data, such as MTSAT, meteorological satellite imagery, provided by Japan Meteorological Agency (JMA) and satellite images by ISRO of India and GISTDA of Thailand.

We also found some difficulties that need greater attention to the \_\_\_\_\_ (*inaudible*), such as narrow-band areas in Asia, where it is very hard to see the Internet. We are planning to apply WINDS for narrow-band areas, WINDS stands for Wideband InterNetworking engineering test and Demonstration Satellite. WINDS will be launched early next year by JAXA. This is MTSAT imagery site, now under development, we will start it shortly before the typhoon and cyclone season starts in Asia. This is an image of application of WINDS. Also WINDS is an experimental satellite, with some operational constraints. However, we would like to utilize it as much as possible. Thank you for your attention, please visit our website.

**The CHAIRMAN** (*interpretation from French*): Thank you very much indeed for that presentation on Sentinel Asia. I wonder if delegations have questions that they would like to put to the speaker? Apparently, no questions, but I am afraid I do like asking questions. I would like to ask the following question. I noted from your presentation that a great deal of effort is going into collecting spatial data that could help anticipate natural disasters but I wonder where the merging is going on? When you are talking about data from *in situ* networks or meteorological radar or data which is collected on Earth, where does the pooling take place of this data, from Earth-based

networks or space-based networks? I would be interested to know.

**Mr. K. KAKU** (Japan): Of course we are going to collect not only space-based data but also ground-based *in situ* data. We are already providing detailed camera image of disaster damaged areas.

**The CHAIRMAN** (*interpretation from French*): Thank you very much. I wonder if there are any other questions before I move on? I see no other queries. I would like to thank Mr. Kaku for his presentation and we will now turn our attention to the next technical presentation, that is to say, Mr. Sarker's presentation on behalf of World Space Week Association, who is going to talk about celebrations of World Space Week in Bangladesh, from 2003-2006. Mr. Sarker you have the floor.

**Mr. F. SARKER** (World Space Week Association): Mr. Chairman, thank you very much for allowing me an opportunity to speak and to present a video in this august forum. I represent World Space Week Association, based in Houston, USA.

I hail from Bangladesh, it is a country which is criss-crossed by hundreds of rivers. Floods, storms, cyclones, are a regular phenomena and our people are accustomed to it. However, these natural calamities have helped us, our people, to develop an impassionate love for sky and to look at it almost regularly to calculate when the rain will start, storm will \_\_\_\_\_ (*inaudible*) and water in the rivers will swell. It is fairly surprising to note that, a weather forecast given by some of our illiterate farmers, prove more accurate than those that are supplied by our meteorological department, obtained through images of \_\_\_\_\_ (*inaudible*) satellites.

In Bangladesh, \_\_\_\_\_ (*inaudible*) activities are run by private organizations. Bangladesh Astronomical Society was created in 1984. During the last 24 years, it has played a pivotal role to inculcate knowledge of astronomy and space science among our younger generation, through arranging various seminars, workshops, educational courses, \_\_\_\_\_ (*inaudible*). Now we get tremendous responses from the people in our \_\_\_\_\_ (*inaudible*) programme with huge participation and fruitful discussion.

Since 2003, Bangladesh has been regularly participating in the celebration of World Space Week. I am presenting here a video, containing footage of these celebrations to show you how our students and ordinary people are crazy about space.

[*video commentary*] World Space Week is an affiliated programme of the United Nations, aimed at creating space awareness among school students around the world. It is an important space event, celebrated annually, from 4-10 October in about 55 countries, coordinated by World Space Week Association, based in Houston, USA.

The first celebration of World Space Week was held in the auditorium of Mirpur Bangla High School, Dhaka, on 4 October 2003. Students participated in lectures and a space art contest.

In 2004, the celebration of World Space Week was held in two places in Bangladesh, one was in Dhaka, the other was in Enayetpur. The inaugural ceremony was held in the auditorium of Mirpur Bangla High School, Dhaka, which was followed by lectures and a video show. The main event of the celebration of World Space Week 2004, was held at Enayetpur, on a roadside and the village was inundated by floods, at that time. Despite incessant rain, thousands of students from local schools had participated in it. A big rally of students elegantly strolled on the street and the villagers were surprised to observe such an unprecedented event.

In 2005, the celebration of World Space Week were held both in Dhaka and Enayetpur. The inaugural ceremony was held on 4 October in the auditorium of Mirpur Bangla High School, Dhaka. However, the biggest event of World Space Week 2005, was held at Enayetpur on 5 October, on the embankment of the River Jamuna. It was attended by over 10,000 people. The gathering of people was so massive that the organizers had to stop the meeting within an hour, apprehending a stampede of the small students by the thousands of crazy people who are still on the street, moving towards the venue of the meeting. The function was followed by a colourful rally participated by thousands of students and space enthusiasts, who strolled on the streets of Enayetpur.

The celebrations of World Space Week 2006 were also held both at Enayetpur and in Dhaka. The main celebration was held in the premises of Mohakash Bhavan Space House at Enayetpur. The venue was gorgeously decorated with colourful clothes and was enclosed with bamboo poles to offer a traditional look. From the early morning, hundreds of students from different schools started arriving at the venue, hoisting their school banners and placards of World Space Week. There were lots of contests and winning students were awarded prizes.

The second event for the celebration of World Space Week 2006, was held in the auditorium of Maple Leaf International School, Dhaka, in which students participated in debate sessions on space topics. It was followed by a question and answer session and a video show.

**The CHAIRMAN** (*interpretation from French*): Thank you very much, Sir, for that presentation and this video, which shows that, in your country, there are tens of millions of space enthusiasts. We would like to congratulate you on the regular organization of the Space Week in Bangladesh and the success which this video showed us. Once again, congratulations.

Are there any questions on the way this Space Week is organized in Bangladesh? Apparently not.

Let me now bring this morning's meeting to a conclusion. We are going to adjourn this 568th meeting of the Committee, however, I would like to mention the work programme for this afternoon. We are meeting at 3 p.m. and I hope then we will finish with item 4, general exchange of views. We will then start on agenda item 5, ways and means of maintaining outer space for peaceful purposes and then item 6, implementation of the recommendations of UNISPACE III.

May I remind you that, two documentaries provided by the Russian Federation, will be shown today, during the lunch break, the first one will begin at 1345, it will last 15 minutes, it is on hydro-cosmos cosmonaut training. The second documentary is devoted to Sergei Korolev, it will start at 1400. These two documentaries will be screened in this room and you are all warmly invited to come and view them. After the closing of today's afternoon session there will be a reception, hosted by the Russian Federation, in the Mozart Room of the restaurant, that will be at 6 p.m.

I would also remind delegates that Conference Room III will not be closed during the lunch break due to the screening of documentaries, so I would kindly ask delegates to take their belongings and valuables with them.

Do I hear any questions on the afternoon programme? Apparently not.

I adjourn the meeting and we will start again at 3 p.m.

*The meeting closed at 12.43 p.m.*