Committee on the Peaceful Uses of Outer Space

Script

Fifty-sixth session

662nd Meeting
Thursday, 13 June 2013, 10.00 a.m.
Vienna

Chairman: Mr. Yasushi Horikawa (Japan)

The meeting was called to order at 10:06 a.m.

The Chairman Excellencies, Distinguished Delegates and Representatives. We will continue our consideration of agenda item 4, General exchange of views first. We will also begin our consideration of agenda item 5, Ways and means of maintaining outer space for peaceful purposes and agenda item 7, Report of the legal subcommittee of its fifty-second session. There will be two technical presentations this morning; by a representative of Germany entitled "Changing the perspective: atmospheric research on the ISS" and by a representative of Japan entitled "Japanese international cooperation".

During lunchtime today, starting at 2 p.m., there will be a screening of a video entitled "No Gravity". The video is 52 minutes in length and it is presented by France and Germany. Delegations are cordially invited to the screening. Also during lunchtime today, there will be informal consultations organized by the delegation of Japan. The informal consultations will focus on two topics. Firstly, on proposal for a new agenda item for the Legal Subcommittee entitled "General Exchange of Information on Non-Legally Binding United Nations Instruments on Outer Space" which was presented as a fifty-second session of the Legal Subcommittee this April and of which you will find a revised volume in document S/AC.105/2013/CRP.6 and secondly, the informal consultations will also concern the discussion paper, draft proposed work plan or mechanisms of cooperative deliberations for space and sustainable development bridging COPOUS and Scientific and Technology Subcommittee STSC presented by Japan. You will find this proposal in document S/SC.105/2013/CRP.8. The informal consultation will take place in conference room C4 on the 7th floor of this building from 2 p.m. to 3 p.m. today during lunchtime. Are there any questions or comments on this proposed schedule.

I see none.

I wish to remind delegations that the draft list of the scheduling of technical presentation during this session of the Committee has been distributed to all delegations yesterday. The list of technical presentation will be closed by the adjournment of our plenary meeting this morning. Delegations should provide the secretariat with any updates to that list by no later than 1 p.m. today. Distinguished delegates, 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 delegate of Belgium. You have the floor.

It is so decided.

Ambassador F. Recker (Belgium) Thank you Mr. Chairman. Chairman, first of all I wanted to congratulate on Belgium's behalf, congratulate you on you re-election, the extension of your mandate. Belgium associates itself with the statement on behalf of the European Union, by the Europeans Union's representative at the Vienna-based international organizations. Ladies and gentlemen, the past year since the most recent session of COPUOS, has been rich in events at least for Belgium in the area of space activities. The council of ministers of the European Space Agency met in November 2012 and at that time Belgium confirmed its willingness to financially support ESA's activities by 18 million euros per year. That's an increase in our contribution, thus Belgium has become the fifth contributor to the agency. Belgium's space budget is devoted to space research, exploration, including bilateral cooperation and now comes to about 200 million euros a year.

Belgium hosted under the European space programme at its solar terrestrial centre of excellence. The coordination centre for the space web initiative of ESA. This is a key body for the implementation of the space situational awareness initiative promoted by the agency. The choice of the solar terrestrial centre of excellence as host confirms Belgium's expertise in the matter. Another success was accomplished, putting in orbit Vega 2013 satellite devoted to mapping vegetation, remote observation of the Earth, monitoring climate change plus a series of smaller satellites designed, developed and assembled by Belgian enterprises. Other projects are underway, CubeSats 50 which was presented at the 50th of the Scientific and Technical Subcommittee of COPUOS last February, an

ambitious project designed to implement in a step by step fashion 50 Cube Sats which will dedicated to studying various constituent components of lower orbit. This project coordinated by the von Karman Institute is financed by the European Union and it is concrete proof of the fact that Belgium is living up to its commitments under international treaties and United Nations resolutions with regard to outer space. Regarding our space law related activities, we should highlight Belgium's active participation in the working group on the long term sustainability of outer space activities. The report of the destruction in orbit of a satellite to prevent a collision generating debris and also Chinese satellite currents reminds us how the dangers posed by this saturation of orbits are becoming a reality every day. We continue to actively participate in the work of this commission and in the international arena jointly with our partners Seek Solutions to mitigate these threats. Work with States and space operators.

In September 2012, we carried space week activities attended by Mr. Boulden, NASA administrator, on the occasion of the twentieth anniversary of STS 45 where Belgium participated as a payload specialist. Mr. Boulden during his visit was made honorary scout doctor of the Institute, of the University of Liège. We also hosted the meeting consultative committee bringing together representatives of more than 100 countries to consider links that exist between outer space and the Antarctic and shared concerns in that regard; the discussions, the methodologies adopted showed that we have a lot in common and this has been very interactive and very helpful.

Mr. Chairman, distinguished representatives, Belgium continues making every effort to support the development of technologies that would make it possible for all to benefit from outer space and orbital resources. Be it in terms of gaining knowledge or in terms of day to day applications. The greatest challenge in space activity is to explore and use it in a reasonable and sustainable way without threatening the wellbeing and the interests of the current and future generations of humankind. This is a challenge that is met every day by engineers, scientists and politicians including an increasing number of women. We have known for a long time, Mr. Chairman, that without women, the space adventure would not be possible. And we are happy that the 56th session of the Committee has given us an occasion to celebrate the infinitely important contribution made by women every day, exploring outer space. Among these women is of course Valentina Tereshkova who is special, was the first woman to fly into outer space. Followed by many other women astronauts. Some of them have given their lives for the cause. We're honoured by her presence at this session of the Committee. Among successes of Valentina Tereshkova, Belgium has its own excellent candidate. In 1992 Dr. Marianne Merchez was chosen as a member of the first generation of the European Core of Astronauts. Even though Marianne Merchez never flew in outer space, and it was her own choice, it shows once again that women have a lot to offer and that is a resource still not sufficiently tapped. It was once again demonstrated, in a different way, but also very convincingly, by the director of OOSA, Dr. Mazlan Othman. Thanks to Dr. Othman, the United Nations has had an excellent resource in terms of knowledge and experience, a renowned scientist and researcher and a person with great experience and international cooperation. Madame Othman embodies the spirit of cooperation and humanity which has been the very spirit of our work in COPUOS. We are grateful to her and we hope her every success in her future work. Thank you very much.

The Chairman I thank the distinguished representative of Belgium for his statement. The next speaker on my list is the distinguished representative from Indonesia. You have the floor.

Mr. B. B. Tejasukmana (Indonesia) Thank you Mr. Chairman, first of all, on behalf of the Indonesian Delegation, allow me to congratulate you on presiding over the Fifty-Sixth Session of the UNCOPOUS. We believe, with your able leadership as well as vast experiences, you will succeed in leading the deliberations of this Subcommittee to valuable outcomes. In addition, my delegation would also like to extend our deep appreciation to the Director of the Office for Outer Space Affairs, Dr. Mazlan Othman for her able stewardship of the OOSA and personal dedication to our common endeavours since 2007.

Mr. Chairman, as the member of COPUOS since 1973, Indonesia is of the view that COPUOS could contribute more to solve global challenges through the discussions in each agenda item. However we have seen that some agenda item like definition and delimitation has stagnated discussion that we do not have any consensus until now. Therefore, Indonesia reaffirms its support to the discussion on the agenda of the definition and delimitation of outer space. We have a fervent hope that all COPOUS Member States will come to a minimum consensus on this matter so we can make some progress.

Indonesia also reiterates its support to the discussion under the theme of "Water for Life" in order to find viable short-term and long-term solutions to address water-related issues, particularly to improve

access to necessary data for water management and to conserve water resources.

With regards to the Regional Support Office/RSO UNSPIDER, our Space Agency is currently in the process of establishing Remote Sensing-based Application Data on forest fires and emergency response, in cooperation with the Indonesian National Board for Disaster Management and Sentinel Asia.

Mr. Chairman, underlining the importance of the development of space science and technology for peaceful uses to all interested countries and organizations, we therefore would like to support the candidature of the Government of Ghana to be a member of the UNCOPOUS, and the Inter-Islamic Network on Space Sciences and Technology (ISNET) to be a permanent observer in the Committee.

In this vein, Indonesia also welcomes the initiative proposed by the Government of the People's Republic of China to establish a UN Regional Centre for Space Science and Technology Education in East Asia and Pacific in the University of Beihang China Furthermore, we would like to encourage that this centre cooperate with other existing centres, including the CSSTEAP in India.

Mr. Chairman, I would also like to take this occasion to congratulate the Asia Pacific Regional Space Agency Forum (APRSAF) for its 20th anniversary. As a forum, APRSAF has paid beneficial contributions to the promotion of cooperation, expand the network, information and view sharing related to space activities in the Asia-Pacific region. Furthermore, as a country prone to disasters, Indonesia highly appreciates the concrete initiative of APRSAF called Sentinel proven to be beneficial especially for countries having disaster which needs data sharing We therefore look forward to the stronger role of APRSAF and further cooperation under APRSAF.

Mr. Chairman, in affirmation of our commitment to actively participate in the regional and international measures to promote space science and technology and its applications to support the development, we would like to announce that Indonesia will be hosting two important events.

Firstly, the United Nations/Indonesia Conference on Integrated Space Technology Application to Climate Change which will be held under the framework of the United Nations Program on Space Applications. This Conference will take place in Jakarta, Indonesia from 2 to 4 September 2013.

Secondly, as to contribute to the capacity-building process in the area of outer space cooperation with the International Astronomical Union (IAU), Indonesia will hold "International School for Young Astronomers", from 26 August to 13 September 2013.

In conclusion, Mr. Chairman, Indonesia is fully committed to develop the cooperation with all member states in the context of the peaceful use and application of space science and technology in accordance with the international law and the principles and purposes of the United Nations Charter and to reach the development goals.

I thank you, Mr. Chairman.

Mr. Chairman I thank the distinguished representative of Indonesia for his statement. The next speaker on my list is the distinguished representative of Tunisia. You have the floor.

Mr. T. Kahir (Tunisia) In the name of God the merciful the compassionate, Mr. Chairman, distinguished delegates, distinguished ladies and gentlemen. It is a source of pleasure and privilege for me to address you and I am all the more privileged because we take part in the fifty-sixth session of the COPUOS as a full-fledged member. Allow me Mr. Chairman, at the outset to congratulate you on your election as chairman of this Committee. I would like to express my thanks and appreciation to Ms. Mazlan for their efforts she has exerted in the previous period and for their support she has given to all of us, especially with regard to the developing countries. In that respect, I would like to express my thanks to the OOSA for yearly inviting Tunisia to take part in this Committee as well as in the two subcommittees. This has enabled the relevant authorities in Tunisia to do effectively and participate in these meetings and have contributed to enabling the Tunisian experts to get access to modern advances in outer space and gave them the opportunity to cooperate with member States and advance in the field of outer space.

The radical change taking place in Tunisia today is aimed at establishing a modern democracy where the citizens enjoys freedom and justice. Our foreign policy is characterized with the spirit of cooperation and solidarity with all the people of the world. The accession of Tunisia to this Committee, COPUOS, following the endorsement by the General Assembly in 2010 is one of the gains that we dearly hold today. We're trying to capitalize in this in taking part in all the activities of COPUOS. Tunisia is interested in peaceful uses of outer space and also interested in the implementation of the recommendations of the United Nations conference and we also would to effectively

participate in the work of this Committee and enhance cooperation in the field of outer space and technology.

This is exhibited at all levels through the establishment in year 1984 of a national outer space committee as well as remote sensing centre in 1988. Taking into consideration what is taking place in Tunisia, this Committee that's the outer space national committee has been trying to use outer space in order to preserve this social economic and cultural, as well as strategic objectives of our country and the development of the scientific and technological capacities in order to boost production in agriculture and industry. This committee is entrusted with coordinating with the other members, the other ministries in order to use outer space positively and use techniques of outer space and in order to provide advice in the field of peaceful uses of outer space as well as telecommunication and information, then training for all, those concerned.

Tunisia has played an important part in the launching of Arabsat and has made good use of the technical as well as telecommunications capacities. We have attempted in major conferences as well as meetings organized by the United Nations. The relevant scientific societies. In Tunisia, despite limited resources, has made a fiscal contribution in the international universe for outer space as well as the International Institute for Outer Space Law. We took part also in different applications related to economic development.

Mr. Chairman, distinguished delegates, distinguished ladies and gentlemen, the use of outer space for peaceful purposes is an important part of the modern societies because it helps to monitor the Earth as well as the solar system and the use resources in different fields as well as make use of natural resources and lay down some strategies. That is why outer space has become a part of our daily life of everyone. And this is used of course in many disciplines. Despite our limited resources in the use of outer space, Tunisia has a good intention and is interested in making good use of outer space through the participation of different and relevant, in an ambitious programme that will enable us to make good use of the technological advances and cooperate with international organizations in order to use techniques of outer space and to lay down an infrastructure in Tunisia relevant to that. In view of the technological advances in outer space, Tunisia has revised its laws in order to define the objectives of the national outer space committee in order to enable that committee to carry its tasks effectively. Through your August committee, Tunisia has been engaging in cooperation with member States in the peaceful uses of outer space and in programmes and projects monitored by OOSA and we are considering adhering the rest of international relevance, international conventions relevant to outer space.

Tunisia which embarked on the Arab Spring has effectively took part in all technological advances and we will use that in order to create a relations with all peoples of the world that love peace and in order to spread justice and love. I would like to stress that Tunisia is interested in taking part in the peaceful uses of outer space through your vast Committee and we will continue to participate in your Committee and the work of the subcommittees. I thank you for your attention and may the peace of God be upon you.

Mr. Chairman I thank the distinguished representative of Tunisia for his statement. The next speaker on my list is the distinguished representative of Greece. You have the floor.

Mr. Cassapoglou (Greece) Thank you Mr. Chairman. As usual I would like to speak in English but nevertheless you know my very old tradition to speak in French as feeling belonging to the Francophonie. Nevertheless, I have to address you, my few words to you. My dear colleague, Dr. Horikawa, for your second phase of your term, also, my distinguished friends from the two extremities of our Europe; Portugal and Poland for their presence and their value, contribution Filipe and Piotr , thank you very much all of you for your contribution to the I can say, functioning of our committee. Suffering, nevertheless, or however, for some organizational disabilities, but we have to work in the new, let's say, round for its upgrading.

I will now speak in French. I'm not sure where to begin, but I suppose I should begin by congratulating people. I truly feel obliged to thank my very dear friend, Dr. Mazlan Othman. Now for the wonderful organization of yesterday afternoon's event. It was an and will be unforgettable because that was the first time that we actually saw those women who opened the way to the stars. To add to what was said yesterday evening about masculine and feminine, I would like to say things in ancient Greek and in Latin and even more ancient civilizations, say Chinese, Hindu and Persian, but in Greek the word vie, life and the word peace, life and peace are all feminine words. Whereas, the words death and war are masculine. So, perhaps in the history of our most ancient civilizations, we had women in the role as peacemakers and the role of extending life on Earth. So, thank you very much Dr. Othman for organizing that wonderful event for us. And, I apologize for mentioning you so often, but I feel like we are like brother and sister.

I would like to congratulate China from the bottom of my heart for its success the day before

yesterday in space. I should emphasize, that's another Greek word, that China all alone, without any help, even, in fact, excluded from this huge effort civilian effort, the International Space Station, China has been able to go it alone and in 7 years' time, will have its own space station. Which will be the successor of the Space Station. So, my dear Chinese friends, this is a unique milestone in technological history and now I will make a digression into history. In the history of rocket science in ancient Greek it was ballistic, not ballistic. The Greeks were the first and a few centuries later the Chinese followed them. But we did something regarding the history and the principles of physics and we managed to get wheels to move alone. So, we built toys for children to amuse them and in China, you made fireworks which inspired other rockets which were really the ancestors of our rockets today. So, those two ancient civilizations, these two nations are proud to make this contribution to humanity from what were children stories.

Unfortunately they also became weapons. So we must pay attention to the non-militarization of space. Space must not become a weapon. We have a huge duty there. I feel proud to say that Greece will participate in the evaluation mission of Beijing University to become regional centre for space technology and education. This is a great step forward. Almost 10 years ago that University established a department of law for engineers and astronauts and Greece will participate in that evaluation.

Yesterday was quite informal I think, and today I would like to repeat the invitation of Paphos University in Cyprus to the Chinese astronaut from yesterday to come to the birth place of the Goddess of beauty and love. And now, I think you are all aware of my close family links to Japan. I think you all know that my daughter in law is Japanese and my granddaughter, my very beautiful granddaughter is Greek and Japanese and we would like to support Japan's proposal as part of the Legal Subcommittee and please allow me Mr. Chairman to say that Greece will co-sponsor that Japanese proposal. Thank you very much.

And last but not least, two words, few words, for my beloved executive director Professor Mazlan Othman. I know that regulations are often a terrible thing because I know that you must now abandon us at the end of the year. I would just like to say a few words. Dr. Othman has made OOSA into an organization with a smile and it is very important to have this attitude. It is almost an attitude towards life itself. We are truly grateful to you, because it is not just the way that you have opened your doors twenty four hours a day, 365 days a year, it is also the fact that your scientific contribution and, I would venture to say, your administrative and organizational contribution has been truly excellent. I know we always say ladies first and I would now like to say to our colleague, the Japanese astronaut who is the expert in space applications. I would just like to say for a very long, Greece claimed that astronauts should be here with us and to have that possibility to be favoured by their human and scientific experiences. It was truly beautiful, so thank you to the expert in space applications because that will help us a great deal in establishing the regional centre in Beijing and also for introducing space law as a subject in all other regional centres. I would also like to congratulate Jordan and wish them very well as they have established their own regional centre for western Asia. We are the neighbours of the greatest, most beautiful lake in the world, the Mediterranean so we are very pleased to see that the eastern Mediterranean is now represented too. So, thank you very much and I will come back on the next item before I leave tomorrow. Unfortunately I have to tomorrow evening. Thank you very much to everyone.

Mr. Chairman I thank the distinguished representative of Greece for his statement. The next speaker on my list is distinguished representative of Italy. You have the floor.

Mr. P. Colapinto (Italy) Thank you Mr. Chairman. At the outset, allow me to congratulate you, Dr. Horikawa, for chairing the56th session of the Committee on the Peaceful Uses of Outer Space. I am confident that under your able guidance the Committee will achieve valuable results.

Let me also express my deep gratitude to the Director of the Office for Outer Space Affairs, Dr. Mazlan Othman, and her staff for all the efforts and the achievements made in the last years, and for their hard work in preparing this meeting. Since this is the last session of the Committee that Dr. Othman attends in her capacity as OOSA Director, I wish to express once again my most sincere appreciation for her engagement at the service of the United Nations.

The Italian Delegation fully endorses the statement pronounced by the EU Delegation on behalf of the European Union. Nevertheless, I would like to add some specific comments at national level on some points in the agenda and I would also draw your attention on some of the latest Italian achievements in the field of peaceful uses of outer space.

Mr. Chairman, I want to commend the Office for Outer Space Affairs for the organization of a special panel dedicated to the fiftieth anniversary of the first space flight by a woman and we have been honoured with the participation of distinguished cosmonaut Valentina Tereshkova. Mrs. Amalia Ercoli Finzi,

Professor at the Aerospace Department of the "Politecnico" University of Milan, attended yesterday, the panel on behalf of Italy, addressing the issue of the contribution of women to space technology. Along the same lines, I would also like to welcome the public event on "Women in space: the next 50 years" with the participation of distinguished women cosmonauts and astronauts coming from every part of the world.

The peaceful use of outer space and the promotion of international partnerships and cooperation represent a cornerstone of our national space policy. Since the adoption in 2010 of the Italian Document of Strategic Vision 2010-2020, the Government of Italy has strongly reaffirmed its confidence in the progress of outer space activities as one of the major asset in the Italian search system 3-irci a relevant interest of our foreign policy. Italy attaches a great importance to the UNGA Resolution 67/113 on the International Cooperation in the Peaceful Uses of Outer Space. We have always been and still will be strongly committed in supporting the efforts carried out by the UN-COPUOS in achieving its goal of fostering peaceful uses of outer space. We acknowledge the important role of the Committee in strengthening the international dialogue on space issues, facilitating the exchange of information on technologies and best practices, and campaigning for the universal adoption and full adherence to the international Treaties and Principles on the Peaceful Uses of Outer Space.

We also believe that particular attention should be given to the promotion of patterns and practices underlying a long term, stable and sustainable development of outer space activities in all its aspects. New threats have emerged, which require new commitments based on the principles of prevention, due diligence and no harmful interference. In particular, we are concerned about the growth of orbital debris, which presents an increasing menace to space activities, including human space flight and satellite systems. Therefore, Italy welcomes and strongly encourages the current on-going initiatives at international level.

In this regard, we will continue to support the Working Group on the Long-Term Sustainability of Outer Space Activities (LTSSA), which was set up by the Committee two years ago under the valuable and expert Chairmanship of Mr. Peter Martinez. The Italian experts will keep on dedicating their utmost efforts in the activities of the Group and we are confident that the commitment of all COPUOS Members will produce important progress also during this Session.

Along the same lines, Italy actively supports the current efforts aimed at establishing a strong international consensus on an international Code of Conduct for Outer Space Activities. The draft Code, opened for the contributions of the whole international community, is a constructive base with the aim of establishing a text acceptable to the largest number of countries. The purpose of the Code is to improve the safety and predictability of space operations, to enhance stability and security in outer space and encourage the responsible use of space for the benefit of all nations. It codifies a wide range of measures on the prevention of harmful interferences in outer space, on space operations and mitigation of space debris, and procedural measures on information, consultation and notification. We take note of the fruitful discussions recently held in Kiev. Following this first round of open-ended consultations, a revised draft will be proposed for discussion at the end of current year. We consider both these initiatives as complementary and aimed at supporting States in better abiding by their international obligations.

Mr. Chairman, we wish to reiterate our deep appreciation for the efforts carried out by UNOOSA in improving its contribution to the achievement of the Millennium Development Goals, as clearly pointed out by the outcome of the Rio+20 Conference. We particularly value the role of UNOOSA in promoting space-related technologies for sustainable development and the activities of the Office in facilitating regional and interregional cooperation in this field. Given the growing importance of science, technology and innovation in the next future, we are confident that UNOOSA will be able to sharpen its role in the post-2015 UN development agenda, promoting a wide and shared understanding of the importance of space technologies for a sustainable development, especially in the fields of land and water resource management, agriculture, disaster prevention and early warning, and environmental protection.

In more general terms, we share the view that space activities must nowadays be considered as one of the most effective catalyst of economic growth and spin-off innovations for the benefit of all mankind. We are confident that in the very next future the contribution of space technology to job creation, sustainable reindustrialization and widespread socioeconomic development could rapidly and steadily increase. In this regard, a technical presentation entitled "Technology transfer and space business start-up in Italy" will be delivered, under item 9, by the Italian Space Agency (ASI), which constantly supports and promotes the development of space SMEs through national and international initiatives.

Before turning to an overview of the latest activities carried out by our country in outer space, we

would like to express our appreciation for the work and the results of the Working Group on National Legislation relevant to the peaceful exploration and use of outer space. Italy fully supports the conclusions and the recommendations contained in the final report. Let me join my previous colleagues in commending the chair of the Working Group, Professor Irmgard Marboe.

Mr. Chairman, distinguished delegates, over the past year, Italy has continued to deliver successful initiatives and missions and I will try to report on the main achievements and events. Allow me to start with mentioning the successful lift-off, two weeks ago, from the Russian cosmodrome of Baikonur to the International Space Station (ISS), of the joint NASA-ASI long duration mission "Volare". On board, we can proudly applaud the presence of the Italian Luca Parmitano, major and Air Force test pilot, selected by the European Space Agency in 2009. He is the sixth Italian to go in space and the fifth aboard the ISS. Furthermore, Parmitano will be the first Italian to perform an extra vehicular activity (EVA) in two occasions. The Italian delegation, will present, under item 5 a dedicated statement and a short video on this event Italy has this flight opportunity thanks to the MoU signed in 1997 between ASI and NASA. The Italian delegation will present, under item 5, a dedicated statement and a short video on this event.

We believe that astronauts should be considered as the ambassadors of Space. For this reason, last 15th of May, ASI and JAXA organized in Tokyo the event "Italy and Japan: Space cooperation Frontiers" with the special participation of the Italian astronaut Roberto Vittori and the Japanese astronaut Soichi Noguchi. A few days earlier, on the 7th of May 2013, Italy celebrated with other European countries the second successful lift-off of VEGA launcher from the European base of Kourou, in French Guyana. For Italy the success of the European medium launching vehicle is very satisfactory, bearing in mind that our participation in this ESA Program covers more than 65 per cent of its cost.

Following the ESA Ministerial Council of last October in Naples, Italy will continue to fulfil its commitments, supporting in particular the European programs EGNOS/GALILEO and GMES/COPERNICUS. Both programs must be considered among the most significant and promising features of the European endeavour for the implementation of the UNISPACE III recommendations. As far as space science is concerned, Italy still confirms its long standing heritage and unceasing support to the dissemination of space knowledge through a series of different scientific missions. For more than two decades we have been participating in the most prestigious international missions of exploration of the solar system both in the ESA framework and in collaboration with NASA.

The Italian contribution to progress in the field of cosmology is also noteworthy, thanks to our involvement in Herschel, Plank, GAIA and LISA-Pathfinder missions. In this regard, throughout the years the ASI Science Data Center in Rome has been proving to be an extremely valuable asset, supporting the preparation of scientific missions, their management during the operation life, the data archiving and their distribution in close cooperation with many countries on the five continents.

Mr. Chairman, distinguished delegates, it would be hard to successfully promote scientific research in the space sector without investing more resources on the education of the younger generation to a real "space culture", spreading an overall awareness of the benefits of space applications for human daily life. Since 2004, the Government of Italy, through the "Politecnico" University of Turin and the Institute "Mario Boella", and in collaboration with the National Electrotechnical Institute "Galileo Ferraris", has been granting fellowships for postgraduate study of GNSS and related applications to a number of specialists from developing countries. In September 2012 the ninth class of the fellowship program has started.

We believe that this kind of partnership for higher education could truly represent concrete ways of maintaining in the longer run the outer space for peaceful purposes. A dedicated presentation, under item 5, will be delivered on this point by the students of the master course in "Space Institutions and Policies" co-organized by ASI, Societa Italiana per le Organizzazioni Internazionali (SIOI) and the National Council of Researches (CNR).

Mr. Chairman, let me conclude highlighting some of the events to be held in Italy in 2013 that we deem relevant for the international cooperation in the peaceful use of outer space. The "4th International Venus Workshop", sponsored by the Italian Space Agency, is currently on going in Catania, confirming the contribution of Italy as one of the major sponsors of the ESA Venus Express Mission.

From the 4th to the 6th of September 2013, Italy will host the "12th European Geopark Conference" in Cilento Geopark, near Naples. The event has been organized in collaboration with UNESCO and EURISY, in order to respond to the objectives of "Agenda 21", as reconfirmed by the World Summit on Sustainable Development 2002 in Johannesburg. It will address the global development strategies of Earth Sciences in the world. We are convinced that an

increasing application of specific space technology may help in mitigating the impact of natural disasters on society.

From the 14th to the 17th of October 2013, the "19th KA and Broadband Communications, Navigation and Earth Observation Conference" and the "31st AIAA International Communications Satellite System Conference (ICSSC)" will be jointly held in Florence. The main topic of the Conference, co-sponsored by the Italian Space Agency (ASI) and the European Space Agency (ESA), will be "Satellite systems serving the needs of the 21st Century".

Thank you, Mr. Chairman.

Mr. Chairman I thank the distinguished representative of Italy for his statement. The next speaker on my list is the distinguished representative of Ecuador. You have the floor.

Mr. J. D. Stacey Moreno (Ecuador) Thank you Mr. Chairman. On behalf of Ecuador, let me convey to you, sir, our heartfelt congratulations on being elected chairman of the Committee. We are sure, Dr. Horikawa, under your experienced leadership this session of the United Nations Committee on the Peaceful Uses of Outer Space will proceed in the spirit of understanding and cooperation which has characterized the discussions and the decisions of the Committee and its subsidiary bodies in the past. We also congratulate other members of the bureau. On the other hand, my delegation would like to express its gratitude and recognition to Dr. Mazlan Othman for the highly professional manner in which she has worked throughout her term of office at the head of the Office of Outer Space Affairs. We wish her every success in her future endeavours. We would also like to thank the secretariat for its always dedicated work in preparing the session. My delegation associates itself and fully endorses the statement made by our distinguished colleague, the ambassador of Guatemala on behalf of GRULAC.

Mr. Chairman, Ecuador believes that a COPUOS session is an appropriate occasion for highlighting the basics of space law. One of its most important elements is international cooperation, which is the most appropriate effective way of achieving benefits for all from outer space activities. This is a good framework to talk about a progress achieved in human activities in outer space and the need for them to be inscribed in a legal framework that promotes sustainable development of humankind so that science should not be an end unto itself but a means to improve the wellbeing of our nations. In this context, Ecuador would like to highlight our landmark in the young history of our space activities. The launch of the first satellite, Pegasus, from the territory of the People's Republic of China. It will promote the use of space imagery for education and for strategic purposes. Unfortunately right now, the future of the satellite is uncertain because of its collision with the Russian piece of space debris. And this regard would like to particularly emphasize the fact that the increasing concentration of space debris in orbit is posing a real threat and States must take measures to mitigate this situation, particularly those that are responsible for it in the first place.

Ecuador would like to also report on a workshop sponsored by the United Nations in Ecuador from 8 to 12 October 2012 on the space weather initiative. This was a high level scientific event organized by the UN Office for Outer Space Affairs with the support of the Government of Japan and of NASA and the U.S. Government. With the cooperation of Ecuador, represented by the Quito Astronomical Observatory and the State Secretariat for Education, Science, Technology and Innovation. The objective was to provide information on new scientific knowledge regarding universal priorities in the solar system than effect space weather and the Earth's environment with a view to understanding the impact of space weather on Earth and its surrounding area.

Among other substantial elements, this workshop made an important contribution to the installation of new instruments designed to promote their understanding of the impact of space weather on the upper atmosphere, providing major data blocks regarding space weather previously unobserved with the support of OOSA, it has also facilitated the operation of about 1000 new instruments in more than 100 member States. In this context, the first practical result of the Quito workshop, Ecuador offered to host a space weather magnetic data collection instrument, MAGDAS. That is a direct result of the agreements reached during the workshop. This will be of substantial use to us in promoting the objectives we have set out to strengthen publicly beneficial space applications and human talent development. For my country, Chairman, international cooperation is of major importance. And we must move it from the purely declaration of dimension to make it a guiding principle with legal standing. For that, it is important to fully implement the recommendations of UNISPACE-III and this period, Ecuador fully agrees with what was stated by the scientific and technical subcommittee of COPUOS in that the implementation of the recommendations of UNISPACE-III will help developing countries to meet existing challenges. Hence, it is essential that industrialized countries to pool their resources together to make it possible for developing countries to launch space application

programmes that will help them achieve greater progress. This is something that can no longer be postponed in an era of globalised solidarity. Ecuador is a gateway to the so-called Ring of Fire in the Americas. Eighty per cent of our volcanoes are active. Also, we suffer from the El Nino phenomenon which has caused considerable human losses and economic losses and millions of dollars, therefore we fully support what the implementation of the SPIDER system. It's appropriate management will make it possible to mitigate the impact of natural disasters if applied in a timely fashion. My country uses this important platform to forecast floods that cyclically affect Ecuadorian coastlines.

Mr. Chairman, with regards to the equitable access to the geostationary orbit. I'd like to reiterate that it is a matter of priority for the State of Ecuador. Once again my country's states that this limited natural resource must be accessible as a matter of priority to all countries, particularly developing countries with a specific geographic situation that need to use outer space for common interest. In this context, we should point out that Ecuador has significantly contributed to the development of international space law in this area, in particular which was reflected in its own domestic legislation because our national government attaches great importance to the matter. It's indispensable that we maintain issue in our agenda, keep thinking about it and developing norms and standards to ensure equitable access to this limited natural resource. With no prejudice to the generous international regime with regards to this orbit which would take into account the interests and needs of developing countries, countries with a certain geographic position in accordance with article 44 of the ITU Convention as reformed in Minneapolis in 1998. We recognize the competency of COPUOS as the body that should treat the legal and political issues pertaining to this subject.

Chairman, my country would like to announce with great pleasure that we have set up an Ecuadorian space institute. It was launched in July 2012 and this a body that will pursue the following objectives; scientific research of outer space and the promotion of peaceful uses of outer space, coordination of space related programmes and projects to assist national development, applied research in the area of remote sensing and geographic information systems and defence related activities, support of national resource management and exercising our rights with regard to the use of the geo-station re-orbit.

Mr. Chairman, to conclude Ecuador recognizes a common interest of all humankind and the sovereign right of every State to participate in the exploration of outer space for exclusively peaceful purposes. We are convinced of the benefits that can be derived for human development. Thank you very much

Mr. Chairman I thank the distinguished representative of Ecuador for his statement. The next speaker is the distinguished representative of Egypt. You have the floor.

Mr. A. H. M. El Nahry (Egypt) Mr. Chairman, ladies and gentlemen, members of COPUOS. First of all as representative of Egypt, I would like to congratulate you , Mr. Chairman, upon your re-election as chairman of the Committee. I'm sure that you will do a wonderful job as usual. We would also like to thank Dr. Othman for the way in which she has headed OOSA and all the efforts she has made, especially in terms of setting regional centres for the space technology. Notably that in Jordan and in China. I would like to refer to the women astronauts from yesterday. Who have shown unparalleled courage and valour. It is wonderful to see something like this celebrated by all religions. We have, would also like to make some comments regarding the UN conventions on space, the decisions and resolutions of the UN and other others.

The way to achieve our aims is to strengthen role of COPUOS and its two subcommittees whilst encouraging cooperation and exchanges between member States and others. We need to provide access to space and knowledge. Space activities and strengthening scientific cooperation are also important. We need to encourage bilateral and multilateral arrangements and agreements on the joint exploration of space as well as increasing the number of space missions based on complementarity of technologies and knowledge. We need to stress the role of COPUOS as an international forum for consultation in the area of space whilst boosting cooperation and reaching consensus on items under study.

We know that there are increasing perils and dangers, we need to cooperate with developing countries because of these, the dangers that are threatening our planet. If we reinforce security in space, we also need confidence-building measures and we need to show transparency and solidarity. We have legal systems that ban weapons in outer space and we promote the peaceful space environment and we have all committed to the peaceful uses of outer space. We need to strengthen cooperation between COPUOS and other international organizations, starting with the international court of justice regarding the management of outer space and space debris. We need to strengthen peace and security by guaranteeing access to space for all. We also need to continue to enable all States to accede to UN space treaties. We also need to strengthen geographic information systems generated

by remote sensing for sustainable development purposes and we need to harness space technology for biodiversity, food security, water management, marine environments, in order to combat drought and find new sources of water, predict floods and better manage natural disasters.

To conclude, regarding how to keep space peaceful, we need to open up access to all countries on the basis of legality, free of discrimination on an equal footing, independently of the level of scientific and technological development of a country. We need to take this into account as well for the Moon and other heavenly bodies, we need to think about improving the living conditions of everyone on Earth and we need to increase international cooperation for that. Egypt stresses the need to boost the role of COPUOS and to provide the right information regarding border disputes or water or land resources. We should use remote sensing for those purposes. Thank you

Mr. Chairman I thank the distinguished representative of Egypt for his statement. Now we will proceed to the statement from observers, the next speaker is from the International Astronautical Federation (IAF). You have the floor.

Mr. S. Saveliev (IAF) Thank you very much Mr. Chairman. Dear Mr Chairman, distinguished delegates, distinguished observers,

President Kiyoshi Higuchi is unable to attend this session and has asked me as IAF Vice-President in charge of liaison with international organizations relations and developing countries to represent him and extend his sincere greetings to the chairman of the Committee Mr Yasushi Horikawa, to Mr Filipe Duarte Santos first vice-chair, to Piotr Wolanski second vice-chair/rapporteur and to all delegates and observers present at this 56th session of the United Nations Committee on the Peaceful Uses of Outer Space.

He also asked me to convey his regards to Dr Othman, Director of the Office of Outer Space Affairs.

On behalf of the International Astronautical Federation, now is its 62nd year, I am pleased to have the opportunity to report to you last year's achievements, with a particular view on our activities, relevant for the work of UNCOPUOS and our activities, which we conduct together with UNOOSA. I will also briefly mention the outline of the Federation's upcoming activities.

About the International Astronautical Federation; the IAF is a worldwide federation of institutions active in outer space. Created in 1951 to establish a dialogue between scientists around the world and to lay the foundation for international cooperation, IAF continues to connect space people to this day. It is well known as the organizer of the premier annual global space conference, the International Astronautical Congress (IAC).

Our activities, however, go far beyond this. Following our theme "A space-faring world cooperating for the benefit of humanity", IAF advances knowledge, development and applications of space assets and maintains a significant worldwide network of experts, addressing all aspects of outer space. Our membership comprises 246 organizations from 62 countries, with an increasing number of recently joined members from Africa, Asia and Latin America. It includes space agencies worldwide, leading industrial companies, research institutes and professional societies as well as universities and museums members.

Achievements in 2012: the past year was a very successful one for the IAF. As part of its series of global conferences inaugurated in 2010 with the Global Lunar Exploration Conference in Beijing, China, the IAF, together with the American Institute of Aeronautics and Astronautics, held its Global Space Exploration Conference (GLEX) in Washington D.C., United States, on 22-24 May 2012. The focus of this conference was to help build and maintain international relationships that will foster collaboration in space exploration. GLEX was a very successful conference, exceeding all expectations. The attendance was high with a total of 634 participants, the quality of the conference was superb. Excellent plenary sessions were followed by well-structured and well-attended breakout sessions. An intensive dialogue with the audience was a characteristic in most sessions. Based on this success, IAF will look into a follow-on meeting, however not on an annual or biannual basis, but as the demand surfaces and time is ripe.

In September 2012, at a ceremony at the ILA Berlin Air Show in Germany the IAF received back from a Chinese delegation, including top-level representatives of the China Manned Space Agency and a Chinese taikonaut, 300 IAF 60th anniversary flags, the only object on Earth to have flown aboard spacecraft belonging to all nations with an active human spaceflight programme. The flags, travelled in space for a total of 444 days, have been aboard Soyuz TMA-20, the International Space Station (ISS), Endeavour STS-134, Tiangong-1 and Shenzhou-9. In an extra-ordinary session of the General Assembly at last year's International Astronautical Congress (IAC) in Naples, Italy these flags were given to IAF member organizations as token of appreciation for their support to the Federation.

The 63rd International Astronautical Congress (IAC 2012) was held in Naples, Italy from 1 to 5 October 2012. With more than 3400 registered participants IAC 2012 set a new record. A very successful space exhibition, an interesting plenary programme including 8 plenary events, 3 highlight lectures and 3 late breaking news sessions, a comprehensive technical programme with more than 1500 papers and more than 230 posters presented in 171 technical sessions, the 22nd UN/IAF Workshop, the International Meeting for Members of Parliaments and new initiatives like the IAF Global Networking Forum (GNF) and the IAC Cities Summit are only some of the highlights of last year's Congress.

The 22nd UN/IAF Workshop was held last year from 28 to 30 September in conjunction with the 63rd IAC in Naples (Italy). The theme was "Space Technologies Applied to the Needs of Humanity: Experiences from Cases in the Mediterranean Areas". The Workshop has discussed space technologies, applications, information and services that contribute to sustainable economic and social development programmes, primarily in developing countries. The programme included technical sessions on space technology applications for discovery and preservation of cultural heritage, maritime applications of space technologies, space applications for desert environment monitoring and land management. Overall, 33 oral technical presentations were delivered and 25 papers were submitted for a poster session. More than 100 delegates from 45 countries attended the workshop. The IAF takes this opportunity to thank again the Director and staff of the Office of Outer Space for their excellent cooperation in the organization of this annual workshop.

The 23rd UN/IAF Workshop will be held this year from 20 to 22 September in conjunction with the 64th IAC in Beijing (China). The theme will be "Socio-economic Benefits of Space for Developing Countries". I invite all distinguished delegates to send members of their space community to this event of growing interest and importance.

The 1st International Meeting of Members of Parliaments was held during the 60th IAC in Daejeon, Republic of Korea, in 2009, at which lawmakers from around the world gathered to exchange views on the uses of space technology for the benefit of mankind. A follow-up meeting was then held during the 61st IAC in Prague, Czech Republic, in 2010. Based on the success of these meetings, the IAF has decided to make this a regular event on the IAC calendar, to be held annually on the day prior to the Congress. The 3rd meeting was held in Cape Town in 2011 to discuss "The use of space technology for water, food and energy resource management" and the 4th meeting took place in Naples during the 63rd IAC and focused on the topic: "Satellite-based Applications — Tools for Policy Implementation and Verification".

The IAF will continue this series with the 5th International Meeting of Members of Parliament to be held in conjunction with the 64th IAC in Beijing in September 2013 with the theme "Benefits of Space Technology for Economic Growth and Competitiveness of Industry".

The 64th IAC in 2013,this year, the International Astronautical Congress will return to Beijing, China, after 17 years. The 63rd IAC will be hosted by the Chinese Society of Astronautics CSA from 23 to 27 September 2013. "Promoting Space Development for the Benefit of Mankind" has been chosen as theme for this year's Congress.

The Congress will feature more than 30 symposia in 5 different categories (containing about 180 technical sessions, where typically 19 take place in parallel), as well as 7 plenary events and 4 highlight lectures and late breaking news sessions. The Call for Abstracts for IAC 2013 closed on 28 February 2013 and a record number of 3646 abstracts were submitted. The International Programme Committee (IPC) Members gathered on 18 to 20 March 2013 in Paris to proceed with the selection process. The ratio of accepted contributions was 63 per cent (76 per cent of oral presentations and 24 per cent of poster presentations), meaning that 2275 technical presentations have been accepted inside the technical programme. Registration for the congress is open and discounts for early registration are still available till 15 June.

On behalf of the Federation I would like to invite you to attend this Congress of utmost relevance to the work of COPUOS. During the IAC 2013, the IAF will continue to highlight the issues of the long-term sustainability of outer space activities, including the mitigation and removal of space debris. This issue is of high priority for the IAF, as it is for COPUOS, considering the threat of an increasing orbital debris population, the crowding of selected orbit families and various radio interference concerns between active spacecraft in geostationary orbit.

To this end, in 2008 the IAF established its Committee on Space Security, which consists of more than 20 experts on political, economic, legal and technical matters, including Dr Peter Martinez, chairman of the COPUOS/STSC Working Group on Long-term Sustainability of Outer Space activities.

Since 2009, this Committee has addressed various issues relating to space safety and security at

the IAC. Of particular interest to COPUOS delegations, the IAF Committee on Space Security will hold a joint session with the Space Debris Symposium at the 64th IAC in 2013 dedicated to "Political, Legal, Institutional and Economic Aspects of Space Debris Mitigation and Removal".

IAF Symposium on Active Debris Removal at 50th session of STSC of COPUOS: the International Astronautical Federation organized a Symposium devoted to an "Overview of Studies and Concepts for Active Orbital Debris Removal" during the opening day of the 50th session of the COPUOS Scientific and Technical Subcommittee, held in Vienna from 11 to 22 February 2013.

The objective of this symposium was to inform COPUOS national delegations and permanent observers on the present status of studies and concepts being considered in various parts of the world for active orbital debris removal.

The symposium was organized around presentations by speakers from 7 different countries and from the European Space Agency, followed by a question and answer session. It was moderated by Gerard Brachet, former Vice President of IAF.

The symposium was obviously timely in view of the discussions taking place within the Working Group on Long-term Sustainability of Space Activities of COPUOS/STSC. Many delegations to COPUOS expressed their satisfaction to IAF for having taken the initiative of organizing the symposium on this specific topic.

IAF President's Agenda 2013-2014: with the aim to reposition the IAF and expand its activities and global reach to foster international collaborations the IAF President, Mr. Kiyoshi Higuchi, has developed a "President's Agenda for 2013-2014" which is focussing on the following concrete priority actions: review and upgrade of the IAF constitution and bylaws, streamline the structure and rules for IAF technical committees, streamlining the structure and rules for administrative committees, connecting emerging/developing and advanced space fairing countries, evolution of the International Astronautical Congress, membership development, evolution of the IAF Global Networking Forum (GNF), further evolution of IAF Youth Programmes and the creation of a "President's Circle"

Dedicated Working Groups have been created to focus on these actions and good progress has been achieved so far. This initiative will prepare the grounds to allow the Federation to further grow and prosper adapting itself to the challenges of global changes of today.

Plans for 2014: the IAF has initiated its planning activities for the 65th IAC, which will be hosted by the Canadian Aeronautics & Space Institute (CASI) in Toronto (Ontario) from 26 September to 3 October 2014.

Also planned for 2014 is another IAF Global conference, this time devoted to space applications, that IAF is preparing with UNESCO as its main partner and with the support of the UN Office of Outer Space Affairs. This "Global Space Applications Conference (GLAC)" will be held on UNESCO premises in Paris from 2 to 4 June 2014 and will provide an excellent opportunity to review the state of the art of satellite-based applications with a holistic view. The Conference will bring together the global satellite-based services stakeholder community, including senior representatives of the major space agencies, industry, governments, academia and NGO's, who will present results, exchange ideas, debate roadmaps and discuss the future opportunities provided by satellite-based applications. The conference will also include a dedicated session for the representatives of Member States to UNESCO. On behalf of the International Astronautical Federation I would like to cordially invite you to attend this Conference in Paris next year.

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

Thank you very much for your attention.

Mr. Chairman I thank the distinguished representative of the International Astronautical Federation for his statement. The next speaker is the representative of the European Space Agency (ESA). You have the floor.

Mr. J.C. Bigot (ESA) Mr. Chairman, the European Space Agency (ESA) would like to take this opportunity to thank you for your important contribution to the work of this Committee. Under your very able guidance and leadership, this Committee has achieved important progress on several issues. We would also like to thank the Director of the Office of Outer Space Affairs, Dr Mazlan Othman and the entire office for their central work and their valuable support to the work of this Committee. I take this opportunity to wish Dr. Mazlan Othman well in the future after her dedication on all her achievements in outer space affairs.

Mr. Chairman, in my statement, I shall take an opportunity to address main and not all of the achievements of ESA since the last meeting of COPUOS last year in June 2012.

All of these achievements have been possible thanks to the vision and commitment of the ESA Member States. On behalf of the ESA Director General, I would like to take this opportunity of this statement to thank the ESA Member States for their sustained support and investments, which were instrumental in delivering these successes.

First and foremost, I would like to mention that ESA held a successful two-day Council meeting at ministerial level in Naples, Italy on 20-21 November 2012.

Ministers in charge of space activities within the 20 ESA's Member States and Canada met to agree on ESA's future space programmes, aiming to boost Europe's competitiveness and growth along with scientific advances.

The debate was wide ranging: the European Space Agency — an intergovernmental organizations of European nations — is one of the few space entities in the world active in all areas of space: exploring space and safeguarding the terrestrial environment while boosting continent's technical knowhow and economic competitiveness.

Ministers adopted 4 resolutions: "on the role of ESA in sustaining competitiveness and growth" that was the political programmatic highlight of the council; "on the level of resources for the Agency's mandatory activities from 2013 to 2017" which cover the science programme and basic activities; "on the CSG" which is the renewal of the contribution of ESA member states to the running costs of the Guiana Space Centre; and "the political declaration towards the European space Agency that best serves Europe".

In few words, decisions were taken on the start of new programmes and on the continuation of ongoing programmes: Ministers approved and secured 10 billion euro for ESA's space activities and programmes for the years to come. On science, on launchers, on Earth observation, on human spaceflight and exploration, on telecommunications and navigation, on space situational awareness and on technology, research and development to prepare the future of space in Europe.

Mr Chairman, I would like to draw your attention to the fact that the ESA family grew since the last COPUOS plenary meeting. Poland became ESA's 20th Member State on 19 November 2012.

Apart from the 20 ESA Member States and Canada, several observers were also present at the Ministerial Council: Eight out of the 9 EU Member States that are not yet Member States of ESA (Bulgaria, Estonia, Hungary, Cyprus, Latvia, Lithuania, the Slovak Republic and Malta); the European Commission, the European Organisation for the Exploitation of Meteorological Satellites (EUMETSAT), the European Science Foundation, the European Defence Agency (EDA), the European Maritime Safety Agency (EMSA), the European GNSS Agency (GSA) and the Organisation for Economic Co-operation and Development (OECD).

Mr Chairman, distinguished delegates, over the past year, ESA continued to deliver successful missions and I will try to report on the main ESA achievements and events:

On 1st July 2012, our ESA Astronaut Andre Kuipers landed after 193 days in space and as part of the resident international six astronaut crew of the ISS. Launched on 21 December 2011 from the Baikonur Cosmodrome, in Kazakhstan, on a Soyuz spacecraft as flight engineer for Expeditions 30 and 31. Andre Kuipers carried out 30 experiments during the PromlSSe mission covering a wide range of disciplines.

The 2nd August 2012, marked the 50th successful Ariane 5 flight in a row from French Guiana.

On 17 September 2012, Metop-B was launched from Baikonur in Kazakhstan. Carrying 4 sophisticated instruments, it ensures the continuity of the weather and atmospheric monitoring service provided by its predecessor Metop-A, which has been circling the globe from pole to pole, 14 times a day, since 2006. EUMETSAT took control of Metop-B operations, following the three-day LEOP conducted by the European Space Operations Centre (ESOC).

On 3 October 2012, ESA's third Automated Transfer Vehicle cargo ferry, Edoardo Amaldi, completed the final part of its highly successful six-month servicing mission to the International Space Station by re-entering the atmosphere and burning up as planned over an uninhabited area of the southern Pacific ocean.

On 12 October 2012, the third and fourth satellites of Europe's Galileo global navigation satellite system were lofted into orbit. They joined the first pair of satellites launched in 2011 to complete the validation phase of the Galileo programme. The definition, development and IOV phase of the Galileo programme are carried out by ESA, and co-funded by ESA and the European Commission.

On 19 October 2012, ESA announced a new small Science Programme mission called CHEOPS, which will study planets around other stars. Its launch is expected in 2017. CHEOPS — for Characterising

Exoplanets Satellite — will target nearby, bright stars already known to have planets orbiting around them. CHEOPS is the first of a possible new class of small missions to be developed as part of ESA's Science Programme. It will be implemented as a partnership between ESA and Switzerland, with a number of other ESA Member States delivering substantial contributions.

On 19 December 2012, ESA's new deep-space tracking station at Malargtie, Argentina, was inaugurated in the presence of Julio de Vido, Argentina's Minister of Federal Planning, Services and Public Investment, Thomas Reiter, ESA's Director of Human Spaceflight and Operations, and Alvaro Gimenez Canete, ESA's Director of Science and Robotic Exploration. In regular service now, Malargtie station supports ESA science missions such as Mars Express, Venus Express, Rosetta and, in the future, Gaia, BepiColombo, ExoMars, Solar Orbiter, Euclid and Juice.

The agreement to build and exploit the station was signed with Argentina on 16 November 2009, for a duration of 50 years. ESA will make 10 per cent of the antenna time available to Argentina for their national scientific projects.

On 9 January 2013, ESA's Herschel space observatory made new observations of asteroid Apophis as it approached Earth. The data shows the asteroid to be bigger than first estimated and less reflective.

Herschel is an ESA space observatory with science instruments provided by the European-led Principal Investigator consortia and with important participation from NASA

On 14 March 2013, ESA and the Russian federal space agency, Roscosmos, have signed a formal agreement to work in partnership on the ExoMars programme towards the launch of two missions in 2016 and 2018. The partners have agreed a balanced sharing of responsibilities for the different mission elements. ESA will provide the Trace Gas Orbiter (TGO) and the Entry, Descent and Landing Demonstrator Module (EDM) in 2016, and the carrier and rover in 2018.

Roscosmos will be responsible for the 2018 descent module and surface platform, and will provide launchers for both missions. Both partners will supply scientific instruments and will cooperate closely in the scientific exploitation of the missions.

ExoMars will also demonstrate core technologies under development by European industry such as landing, roving, drilling and sample preparation that are an essential part of paving the way for the next big step in the robotic exploration of Mars: a sample-return mission.

On 21st March 2013, ESA's Planck space telescope acquired the most detailed map ever created of the cosmic microwave background, — the relic radiation from the Big Bang which was released to the press, revealing the existence of features that challenge the foundations of our current understanding of the Universe. The image is based on the initial 15.5 months of data from Planck and is the mission's first all-sky picture of the oldest light in our Universe, imprinted on the sky when it was just 380,000 years old. Overall, the information extracted from Planck's new map provides an excellent confirmation of the standard model of cosmology at an unprecedented accuracy, setting a new benchmark in our manifest of the contents of the Universe. It also made it possible to reveal some peculiar unexplained features that may well require new physics to be understood.

On 7 May 2013, the second flight of ESA's newest launch vehicle VEGA has been completed from Europe's Spaceport in Kourou, French Guiana. Vega lifted off on a complex mission requiring five upper-stage boosts and lasting about twice as long as its first launch, in February 2012. Two Earth observation satellites, ESA's Proba-V and Vietnam's VNREDSatlA built by Astrium France, were released into different orbits, demonstrating the rocket's versatility. Estonia's first satellite, the ESTCubel technology demonstrator, was also released into orbit.

It was a great day for ESA, for its Member States and for Europe. Thanks to decisions taken by Member States, ESA and European industry are demonstrating once again their capabilities of innovation. Among the Member States, special mention goes to Italy which has led the Vega Programme, Belgium which has led the Proba projects at ESA, and France which has led the development and maintenance of the European spaceport in Kourou. ESA was also proud to have made possible the launch of the first satellite from Estonia.

The flight was conducted under the Vega Research and Technology Accompaniment programme (VERTA) that aims at demonstrating the versatility of the launch system. It also marked the start of the transition from ESA to Arianespace as launch operator. Arianespace provided flight analysis, preparation and operations, and the marketing that secured VNREDSatlA as Vega's first commercial payload.

On 28 May 2013, a Soyuz spacecraft was launched from Kazakhstan and safely docked with the International Space Station, delivering ESA astronaut

Luca Parmitano and his crewmates to the orbital outpost where they will live and work for five months.

Luca Parmitano is the first of our new generation of ESA astronaut selected in 2009, flying on board the Space Station for the Italian Space Agency (ASI) under a bilateral agreement between ASI and NASA.

With Luca were Russian Soyuz commander Fyodor Yurchikhin and NASA astronaut Karen Nyberg. Luca's own mission is named 'Volare' — 'to fly' in Italian — to symbolise the search for new frontiers and opportunities for discovery.

His launch on a Soyuz rocket was the culmination of more than two years of preparation that has seen Luca training in Russia, Canada, Japan, Europe and the US at facilities of the International Space Station partners. The Soyuz spacecraft lifted off from Baikonur spaceport and reached orbit nine minutes later. Following a series of manoeuvres during four orbits of our planet, Soyuz docked with the Station's Rassvet module. This is only the second flight to arrive in such a short time, eight times faster than the previous two-day procedure.

Soyuz docked as planned and the hatch to their new home in space opened. The fresh crew were welcomed aboard by Station commander Pavel Vinogradov from Roscosmos and crew members Alexander Misurkin from Roscosmos and Chris Cassidy from NASA. More recently, on 5th June 2013, ESA's fourth ATV (Automated Transfer Vehicle), Albert Einstein, was launched into orbit from Europe's Spaceport in Kourou, French Guiana. An Ariane 5 rocket, operated by Arianespace, delivered ATV-4 into the planned circular parking orbit at 260 km altitude about 64 minutes later the lift off. It was also the 55th successful Ariane 5 flight in a row. ATV then deployed its four power-generating solar wings and antenna boom.

The ship is being monitored by the ATV Control Centre, jointly operated by ESA and CNES, the French space agency, in Toulouse. It will complete the Launch and Early Orbit Phase in some six hours after launch and is due to rendezvous and dock automatically with the International Space Station (ISS) on 15 June after tomorrow.

ATV was developed for ESA by European industry, with Astrium as prime contractor, to deliver goods and propellants under a barter agreement with NASA to support Europe's share of the Station's operating costs. It features high-precision navigation systems, highly redundant flight software and a fully autonomous self-monitoring and collision-avoidance system with independent power supplies, control and thrusters.

Albert Einstein is the fourth in a series of five ATVs. It will spend over 4 months docked to the Zvezda module, during which it will provide extra storage room and a quiet rest area for the astronauts. It also offers a powerful manoeuvring capability to raise the Station's altitude to combat natural orbital decay and, if required, to steer it out of the way of dangerous space debris.

At the end of its mission, filled with waste, it will undock on 28 October 2013 and make a safe controlled re-entry over the South Pacific. The last ATV, Georges Lemaitre, is being prepared for launch in 2014. Mr. Chairman this was a summary of ESA's main achievements since the last meeting of COPUOS in June 2012.

Distinguished delegates, Mr. Chairman, thank you for your attention.

Mr. Chairman I thank the distinguished representative of ESA for his statement. Will we continue our consideration of agenda item 4, "General Exchange of Views", this afternoon. Distinguished delegates, I would now like to begin our consideration of agenda item 5, "Ways and Means of Maintaining Outer Space for Peaceful Purposes". The first speaker on my list is the distinguished delegate of Japan. You have the floor.

Mr. T. Osawa (Japan) Thank you Mr. Chairman, distinguished delegates, on behalf of the Japanese delegation, I am very pleased to address the 56th session of COPUOS.

In order to develop and maintain space technology applications for the peaceful uses of outer space, Japan believes that international cooperation is a key factor. Japan also recognizes that international cooperation plays an essential role in enhancing transparency and confidence building among Member States. In this regard, we welcome the inclusion of the new agenda item "Review of International Mechanisms for Cooperation in the peaceful exploration and use of outer space" in the 52nd session of the Legal Subcommittee.

Mr. Chairman,

Japan has been taking part in multilateral discussions through COPUOS since its establishment, and has contributed to the development of regulatory frameworks, principles and best-practice guidelines. In order to encourage wider participation and greater adherence to the rules, Japan is of the view that it is beneficial to compile State practices under voluntary frameworks and will cooperate fully in the process of the formulation of such frameworks.

We believe that an agenda item dealing with the "Long-Term Sustainability of Outer Space Activities", considered by the Scientific and Technical Subcommittee, is essential. This agenda item would contribute not only to the sustainability of space activities, but also to the sustainable development of many countries that use space-based technologies and services on a daily basis. Utilization of these technologies and services has increased rapidly, thus necessitating the development of best-practice guidelines.

My delegation is of the view that the Group of Governmental Experts (GGE) on Transparency and Confidence-building Measures in Outer Space Activities in the General Assembly and the discussion of an international code of conduct for outer space activities are indispensable for maintaining the long-term sustainability of peaceful uses of outer space. Japan is looking forward to actively contributing to these discussions.

Mr. Chairman,

I would also like to introduce our efforts to promote regional and interregional cooperation. The Asia-Pacific Regional Space Agency Forum, or APRSAF, which celebrates its 20th anniversary this year, plays a key role in returning the benefits of space technologies to societies in the Asia-Pacific Region. One such example is "Sentinel Asia", a unique and successful initiative that uses WEB-GIS and space technologies, including Earth observation data and communications satellites, to support disaster management activities in the Asia-Pacific region. Participation in "Sentinel Asia" is on a voluntary basis. "Sentinel Asia" benefits from interregional cooperation through collaboration with other disaster management initiatives such as the International Charter on Space and Major Disasters. Within such a collaborative framework we are able to access space-based data provided by both initiatives.

Mr. Chairman,

I would also like to share our experience with the International Space Station (ISS) Program, which serves as an excellent example of successful international cooperation.

The ISS program, started in 1988, is one of the largest international programs in history. In fact, international cooperation has been driving this program for 25 years. Together, through cutting-edge research and development, we have constructed a huge, manned, orbital facility, which is utilized for peaceful purposes. Based on the agreement among ISS partners, we share the ISS's resources, including the opportunity to use facilities, crew operation time, and the capacity of transfer vehicles to the ISS. In addition to the more tangible results of the ISS program, I would like to also point out that there has been a great spirit of cooperation among the ISS participating countries.

Mr. Chairman,

On behalf of the Japanese Government, I would like to reaffirm the important role of COPUOS in the promotion of the peaceful uses of outer space, not only for those countries that conduct space activities themselves, but also for countries that have the ambition to participate in space activities in the future. Thank you Mr. Chairman,

Mr. Chairman I thank the distinguished representative of Japan for his statement. The next speaker on my list is the distinguished representative of Italy. You have the floor.

Ms. G. Arrigo (Italy) Thank you Mr. Chairman, distinguished delegates. Before starting my statement I would like to share with you a brief video (1 minute and half) on the last Soyuz TMA-09 launching and docking to the ISS which carried on board the Italian astronaut, Luca Parmitano.

Video

Mr. Chairman, distinguished delegates, with reference to the relevant recommendations of the United Nations Conference on the Exploration and Peaceful Uses of Outer Space (UNISPACE III) and, in particular, to the Human Space Technology Initiative (HSTI), launched by the United Nations Office for Outer Space Affairs in 2010, Italy is very proud to contribute to the exchange of information among all COPUOS members, aiming to increase the international cooperation in human spaceflight and space exploration activities for peaceful purposes.

Mr. Chairman, on May 28, as already mentioned by the Italian and ESA statement under item 3, the Soyuz TMA-09 successfully lifted off from the Russian cosmodrome of Baikonur, in Kazakhstan, to the ISS with aboard the European astronaut of Italian nationality, Luca Parmitano, major and Air Force test pilot, selected by the European Space Agency in 2009, with his crewmates, the Russian Commander Fedor Yurchikhin and the American Flight Engineer Karen Nyberg.

The new Soyuz spacecraft "super-fast", at its second flight, led the crew to the orbit in about seven hours, instead of the traditional two days, performing 4 orbits around the Earth. Once the Soyuz vehicle arrived in the right position, the operations started. Luca Parmitano was engaged as co-pilot in the docking with the Russian module of the station.

All checks for technical and safety reasons lasted a couple of hours. The three crew members were warmly welcomed by the other three crew members already into the ISS from March 2013.

From Italian side the expedition 36 is called "Volare" (to fly). The title has been chosen by two Italian students after a school national competition. Luca Parmitano is the sixth Italian astronaut who goes into space and the fifth to climb aboard the ISS. He participates in a long-duration mission and he'll make two or more space walks and extra-vehicle activities.

Mr. Chairman, Italy has a relevant role in the development and utilization of the International Space Station (ISS), thanks to the double channel: the ESA Program with the realization of the Columbus Orbital Facility (COF), the Nodes 2 and 3 and the Cupola, and the activities in the framework of the bilateral agreement with NASA (signed in 1997), according to which, following the design, manufacture and supply of three multi-purpose logistic pressurized modules, ASI acquired the rights to use experiments capacities on board the ISS and flights opportunities for Italian astronauts.

Italy has built, in fact, about 50 per cent of the pressurized volume of the ISS in cooperation with ESA and NASA and, from 2011, one of the three pressurized Italian module is attached permanently to the Station (PMM).

Mr. Chairman, for the six months of the "Volare" Mission, until November 2013, the Italian astronaut, Luca Parmitano, will also focus on experimental activities, which are characterized by a strong presence of Italian scientific and technological know-how. Two Italian experiments of ESA Green Air program are on board: the Diapason and the Italian Combustion Experiment (ICE).

The Diapason concerns the detection in air, with specific equipment, of the presence of particles of a few nanometres in size and it will be applied in air pollution studies.

The Italian Combustion Experiment (ICE) is the study of the evaporation and combustion regimes of renewable liquid fuels. Single droplet imaging is used to perform the study. The experiments are carried out on two selected fuels by varying the pressure and the oxygen content.

Furthermore, during the mission the crew members will perform experiments that cover technology development, physical sciences, human research, biology, biotechnology and Earth observations. Also educational activities will be also performed.

On June 6 the astronauts have managed the arrival of the European Transfer Vehicle 4 (ATV), (Albert Einstein) launched into orbit by an Ariane 5 rocket from the European launching base in Kourou, French Guiana. In August 2013 they will manage the arrival of the Japanese HTV-4 vehicle.

Mr. Chairman, before concluding my statement and before wishing to the astronauts of the thirty-five and thirty-sixth ISS Mission all the best, let me recall that more than 50 years have passed since the first human venture into space. We are deeply convinced that the ISS is a knowledge opportunity not only for the five partner agencies involved, but for all countries and scientific communities to maximize space benefits and results from human space technology and activities.

Thank you Mr. Chairman.

Mr. Chairman I thank the distinguished representative of Italy for her statement. Are there any other delegations wishing to make a statement under this agenda item at this time? Yes, I recognize the distinguished representative of Greece. You have the floor.

Mr. Cassapoglou (Greece) Thank you Mr. Chairman. I just wanted to add a couple of words regarding the so-called sui generis legal regime. For the geostationary orbit. And other non-geostationary orbits. I believe that getting back to an issue was already resolved. First at the Plenipotentiary Conference of the ITU in Nairobi in October/ November 1982 and then by the same Plenipotentiary Conference in Minneapolis, United States in October/ November 1998. I don't think we should be getting back to it. The constituent convention of the ITU and the radio communication rules make it very clear, there is no way, we cannot really talk about fermenting the general statute of outer space. Outer space is a single whole, there is no way to approach it other than as the use of the natural and technological resources in outer space. They need to be used, utilized, not exploited in the commercial sense, but used in an equitable way, but also in an effective way.

That's the logic of it. So I don't really see how or why we should be getting back to the same issue all over again, over and over again. This Committee, and in particular the Legal Subcommittee, should not continue discussing it. The only thing we can demand is that this orbit, be it the geostationary orbit or other orbits, non-geostationary orbits, be used in the same equitable manner but we've said on many occasions, and in particular, in our eminent colleagues the Czech astronaut Lubos Perek and his extraordinarily savvy analyst, not only from the astronomical point of view but from the legal point of view, pointed out, it's a

matter that has been resolved. So, persisting doesn't make sense. The problem lies elsewhere. We need to promote the idea that a specialized United Nations body should established for outer space, a world space organization. So through that national organization we could control the use of space resources for the benefit of humankind.

The 1967 outer space treaty is quite clear about that. It should be used for the benefit of humankind and interest of humankind. So, instead of pushing extravagant ideas, especially with regard to space immediately adjacent to our Earth, it is really not appropriate, we shouldn't go back upon past decisions. So let's be clear, let's make sure that the use of the sum total of outer space be subject to the same logic in the original sense of the word. Those are the few comments I wanted to make for the benefit colleagues. Not all of them may have been here for the past 40 years, both here and in 92. And to conclude, let me make one final comment, the structure of the so-called United Nations system should not have duplications or overlaps. Especially the legislative level. Various specialized agencies should not duplicate the UN, properly speaking. Thank you very much.

Mr. Chairman I thank the distinguished representative of Greece for his statement. Are there any other delegations wishing to make a statement under this agenda item at this time? Yes, I recognize the distinguished representative of Indonesia. You have the floor.

Mr. B. B. Tejasukmana (Indonesia) Thank you Mr. Chairman. In line with the principles of space treaties, Indonesia is of the view that exploration and exploitation of outer space are solely aimed for peaceful purposes. And should bring the significant improvement of humankind. Indonesia is aware that member countries have different capacities in maintaining outer space. Consequently, Indonesia encourage more cooperation in form of the technical assistance, transfer of technology from developed countries to the developing countries under the umbrella of the Committee. Based on their specific needs, the opportunity of developing countries to enhance their capacity should be extended and assisted. Thank you Mr. Chairman.

Mr. Chairman I thank the distinguished representative of Indonesia for his statement. We will continue our consideration of agenda item 5 "Ways and Means of Maintaining Peaceful Purposes for Outer Space" this afternoon. Distinguished delegates, I would now like to begin our consideration of agenda item 7, "The Report of the Legal Subcommittee on its Fifty-Second Session". The report of the Legal Subcommittee on its fifty-second session is contained in document S/SC.105/1045.

At its fifty-second session, the Legal Subcommittee endorsed the recommendation of the Working Group on status and application of the five UN treaties and the Working Group on definition and delimitation of outer space and agreed that those Working Groups should be reconvened at its fifty-third session in 2014 and that the Working Group on the review of international mechanisms for cooperation for peaceful exploration and use of outer space should be convened to begin its work at that session. Delegations will recall that at its fifty-second session, the Subcommittee agreed on a draft provisional agenda for its fifty-third session to be held in 2014. The Subcommittee also noted the proposal by Japan, co-sponsored by Austria, Canada, France, Nigeria and Unites States of America that the Subcommittee should include on its agenda a new item entitled, General exchange of information on non-legally binding United Nations instrument on outer space. The proposal was contained document S/SC.105/C.2/L.291. The Subcommittee noted that the delegation of Japan would conduct further consultations with a view to submitting a revised version of the proposal for consideration by the Committee at this session.

As a result of the consultations, a revised version of the proposal has been made available to delegations in the conference room paper in document S/SC.105/2013/CRP.6. In accordance with the agreement of the Committee at its fifty-fifth session, the Subcommittee also considered the revised draft set of recommendations on national legislation relevant to the peaceful uses of outer space exploration and use of outer space contained in document S/SC.105/C.2/L.289. The Subcommittee agreed on the text of the set of recommendations as amended and recommended that the text be submitted as a separate draft resolution for consideration by the General Assembly at its sixty-eighth session. This set of recommendations in the form of a draft resolution is contained in annex III of the report of the Legal Subcommittee on its fifty-second session in document S/SC.105/1045.

So, the first speaker on my list is the distinguished delegate of Chile on behalf of GRULAC. You have the floor

Ms. T. A. Munoz (GRULAC) Thank you Chairman. GRULAC would like to thank the secretariat for the Subcommittee's report and regarding its content and we would like to reaffirm our conviction that the UN treaties and principles on outer space are the best legal framework for the development

of space activities. However, we believe that the rapid and growing advance of scientific knowledge and space activities require an optimum international legal framework to guarantee correct views. That is to say, specifically for the use of outer space for peaceful purposes. In this sense, GRULAC considers that we need to review, update and amend UN treaties on outer space to strengthen the guiding principles of the responsibility of governmental, non-governmental organizations in this field and to strengthen space security.

We also believe that in order to keep outer space for peaceful purposes, we must update international standards so that it is absolutely and clearly prohibited to use any kind of weapons in space. This update should not be understood as affecting the fundamental principles of the international legal system that currently exists but rather as way of enriching and developing the implementation of those principles. In this context we would like to reiterate that interaction between the Scientific and Technical and Legal Subcommittees should be strengthened in order to synchronise the progressive development of space law with scientific and technical progress.

GRULAC believes that synergy between the two subcommittees will also promote the real understanding, acceptance and application of existing UN legal instruments. The results obtained in the working groups of the Scientific and Technical Subcommittee should be presented to the Legal Subcommittee for analysis. In this sense, with, regarding the use of nuclear energy sources in outer space and guidelines for the mitigation of space debris are documents which could enrich the activities of the Legal Subcommittee. GRULAC is convinced that the UN treaties and principles which regulate the activities in outer space are the essential basis for the duties and rights of States who exercise primary responsibility in outer space activities. This notwithstanding, we need to update UN treaties and principles and GRULAC believes that they need to come into line with the new realities of global space activities.

GRULAC believes that a special legal regime regulating space activities would mean benefits for space research and activities having an impact on the life of human beings and would guarantee conditions for a quality, prosperity and wellbeing for existing and future generations.

Mr. Chairman, regarding the nature and use of geostationary orbit and in order to guarantee its sustainability, GRULAC considers that we need to continue to keep this on the agenda of COPUOS and of the Legal Subcommittee and that we need to set up intergovernmental balance or working groups on this. Regarding the examination of possible review of principles on the use of nuclear energy sources in outer space, GRULAC while respecting international standards believes that regulatory activity associated to the use of nuclear energy sources in space is exclusively the duty of States who should comply with applicable international regulations and guidelines adopted regardless of their degree of social, economic, scientific or technical development as this affects the whole of humanity. GRULAC reiterates international responsibility of Governments in national activities that involve the use of nuclear energy sources in space. Either by governmental or nongovernmental organizations and the importance of these taking place in favour of nations and peoples and not to their detriment. On this basis and by virtue of the security framework regarding the use nuclear energy sources in outer space approved by COPUOS at its fifty-second session.

GRULAC urges the Subcommittee to review this and to promote binding standards that will guarantee the responsible use of these sources to guarantee that any activity in outer space is covered by the principles of conserving life and peace. Especially, we should pay greater attention to legal questions associated to satellite platforms with nuclear energy sources in terrestrial orbit in light of reported failures and possible collisions which present a high risk for humanity. Also due to increasing possibilities of access to outer space by different actors and because of the benefits stemming from space activities, GRULAC believes that we need to continue to develop a legal framework which provides transparency, predictability and certainty in the realization of space activities in order to boost progressive development of international space law and its codification.

Regarding the debate on criteria for optimizing the activities of the Legal Subcommittee, GRULAC considers that the current two week period should be maintained in order to guarantee proper treatment of future aspects of the legal framework of space activities. Taking into that the Subcommittee continues to debate that require proper legal treatment, that is to say the definition and delimitation of outer space; the situation and the implementation of the five UN treaties on outer space among other things.

GRULAC is pleased to see item 11 on the agenda, General exchange of information and opinions on legal mechanisms regarding the mitigation of space debris taking into account the work of the Scientific and Technical Subcommittee, believing that this analysis within the framework of the Legal Subcommittee would enable a sincere necessary debate to pay to attention to and respond immediately to these

questions, especially the setting up of a legal framework which will efficiently deal with the problem of space debris.

And finally, GRULAC would like to say thank you for cooperation provided to the Argentinian Government by the United Nations to organize the workshop on space law entitled "Contribution of space law to economic and social development" which also had the support of the European Space Agency. It took place in Buenos Aires on the 5th to the 8th of November last year and was the eighth in a series of workshops organized by the Office of Outer Space Affairs to create further capacity in space in the field of space law. Thank you.

Mr. Chairman I thank the distinguished representative of Chile on behalf of GRULAC for her statement. We will continue our consideration of agenda item 7, The report of the Legal Subcommittee on its fifty-second session this afternoon. Distinguished delegates, I would now like to proceed, [Yes, oh]. I will give the floor to the distinguished delegate of Greece. You have the floor.

Mr. Cassapoglou (Greece) Thank you Mr. Chairman, just please be kind enough to add Greece as a co-sponsoring State of the Japanese proposal. Just Greece, because I have the floor, be kind enough to ask from the secretariat to add into the report of this Committee the announcement we had made during the Legal Subcommittee session concerning the organization of the ECSL summer courses in Cyprus last year. Thank you very much. It is very kind of you.

Mr. Chairman I thank the distinguished representative of Greece for his statement. This afternoon will be an informal consultation organized by Japan so, you will have the discussion on this matter. And I would now like to proceed with the technical presentations. Presenters are kindly reminded that technical presentations should be limited to 15 minutes in length. The first presentation on my list is by Mr. Hansel Dittus of Germany entitled "Changing the perspective: atmospheric research on the ISS". Mr. Dittus, you have the floor.

Mr. H. Dittus (Germany) Mr. Chairman, distinguished delegates of the Committee on the Peaceful Uses of Outer Space, thank you very much for giving me the opportunity to give a short presentation to this Committee.

To begin with, I would like to briefly introduce the German Aerospace Center, DLR, which I am representing as a member of its Executive Board. I am responsible for Space Research and Technology.

DLR is the national aeronautics and space research centre of the Federal Republic of Germany. Its extensive research and development work in aeronautics, space, energy, transport and security is integrated into national and international cooperative ventures. DLR's mission especially comprises of the exploration of Earth and the solar system and of research for protecting the environment. This includes the development of environmentally friendly technologies for energy supply and future mobility, as well as for communications and security. In addition to enhancing knowledge for tomorrow, DLR serves to help solve today's problems, for example: disaster management, nationally and internationally.

At present we face the dramatic consequences of floods which are currently devastating parts of Austria, the Czech Republic and Germany. These floodings are not an isolated event; they have happened in the past and they will continue to happen anywhere. The most important messages coming out of these unfortunate occurrences are: that we need forecasts with a high degree of reliability on extraordinary meteorological events at the earliest possible time. Secondly, that we need excellent tools and methods for crisis management and support.

That is what we already have today. That is what we can measure and what everybody can see. What is not apparent but equally dangerous are the changes in the Earth's atmosphere. We still do not have sufficient tools to understand the consequences of global atmospheric processes. And changes in global atmosphere can probably cause bigger catastrophes. So, we have to be able to develop sufficient capabilities to monitor these atmospheric changes.

Today, we have successfully passed the pioneering period: in a pioneering age over the past 30 years atmospheric and space scientists have demonstrated that atmospheric and relevant surface phenomena are well measured from space and in particular trends can be well measured in a hugely successful way.

However much better spatial resolution and temporal sampling is required to improve our knowledge of surface fluxes of atmospheric constituents In Europe ESA, EUMETSAT and EU Copernicus (GMES) are slowly progressing to become operational systems, providing global data from low Earth orbit and geostationary orbit (GEO). The next planning cycle to follow on to EUMESAT ESA Metop Second Generation and Meteosat Third Generation will begin in the 2020s for launch in the 2035 to 2040 time frame

However, the ESA Explorer and related path finder missions will provide some opportunities for improving atmospheric observation; there is a lack of flight opportunities for the foreseeable future for new missions addressing the needs for high spatial resolution; what we need today is a paradigm shift, for example,. the use of ISS as an atmospheric observatory rather than a laboratory only for science and development.

Satellites can be considered as the backbone of all of these tasks. However, launching and operating satellites is a very cost intensive and long-term business. Referring to the eighth UN Millennium Goal — Develop Global Partnership for Development — I would like to advocate enhancing the operational spectrum of one of the most important projects of global cooperation, the International Space Station, ISS. To me, this implies that we should use the International Space Station in the low Earth Orbit as a technological platform for Earth Observation.

From my point of view the benefits of this new approach using the International Space Station appear at first hand overwhelming. First of all, the ISS is expected to be in operation until at least 2020 and maybe even longer: initial discussions within the agencies in charge of the ISS seem to even envisage it operating up to 2028. This gives us the opportunity to carry out research and climate measurements for a minimum of at least five years if we act fast; or up to 10 years plus x.

Secondly, costs for operation and transportation of new earth observation devices to the ISS are relatively low because we could transport instruments together with regular flights to the station; no expensive stand-alone launch for a "pure" Earth Observation (EO) satellite would be required. Integration within the ISS and operation could be realized either by astronauts or robotic arms, which are already present on the ISS. Downlink of data is already well proven and new technologies are permanently increasing those capabilities. Also, the existing power supply on board the ISS is giving scientists new possibilities for installing first-rate instruments. Regular satellites are always limited as regards to electrical power.

And third, ISS will ensure observing the inhabited hot spots on Earth, between 53 degrees north and south. This will allow us to monitor 95 per cent of the hot spots and man-made emissions which are assumed to be predominantly responsible for climate change.

Taking this into account, the German Aerospace Center DLR together with the of Institute of Environmental Physics of the University of Bremen — a leading institute for climate research in Germany — invited international space agencies, representatives from industry and academic circles in February 2013 to a workshop in order to discuss possible projects and scenarios which could be realized for Earth-observing purposes on board the ISS.

Thanks to very constructive discussions especially with our participants from NASA and JAXA and many other countries, we were able to establish different project proposals which could be implemented within a practical timeframe and for a reasonable amount of money in comparison to regular satellite missions. Most of these proposals concentrate on atmospheric research. Understanding the different processes which take place in the middle and upper atmosphere is necessary to develop models for climate change processes. The executive summary of the workshop last February is scheduled to be published in due course this year. Nevertheless, I would like to take the opportunity here to highlight a few conclusions gained from the workshop.

There are different proposals which will be considered for completion. It is important for me to state that all project proposals will serve the principle of sustainability which is part of DLR's strategy as well as it is part of UN Millennium Goal number seven:

Changing the operating capabilities of the ISS for Earth Observation serves to firstly, to encourage the possibility to carry out sustainable research by using already existing research infrastructures to their maximum extent and reducing costs. Second, to promote research for a sustainable development by focusing on climate change issues.

Just one week ago, Germany hosted the next round of UN Climate Change talks which started in Bonn on June 3rd. A focal point of the discussions there was "how to measure the 2 degrees Celsius goal". From my perspective, the International Space Station could substantially contribute to answering this question. With the appropriate equipment and sensors the ISS will play an important role in monitoring and thus in protecting our planet.

In giving me the privilege today to speak to this Committee, I would like to invite the United Nations to join this initiative by defining possible goals, for example, via UN-SPIDER. Realizing this project would allow the UN to participate in one of the leading global cooperation projects and make an Earth-observing sensor or instrument on the ISS the United Nations' first observation outpost in Space. The German Aerospace Center is a strong advocate of the

idea of UN-SPIDER. We are at present participating in negotiations to enhance the co-operation between DLR and the UN-SPIDER office in the city of Bonn by introducing interfaces also to other sites of DLR in Germany. It is a great pleasure for me to announce that we are currently preparing a new concept for the office in Bonn, Germany.

DLR operates the German Earth Observation Center which is located in Oberpfaffenhofen (Bavaria) The EOC offers different interfaces to UN-SPIDER and it is capable of supporting the top UN Millennium goal in particular — to eradicate extreme hunger and poverty — by providing reliable forecasts of forthcoming weather, floods or droughts and thereby improving predictions on the outcome of harvests. Regarding the UN-SPIDER office in Bonn it gives me extraordinary pleasure to assure you of the on-going support of DLR: we will be extending our financing of staff in the UN-SPIDER office in Bonn for a further two years.

Please do not hesitate to contact my office for further information concerning our ISS-initiative. It will be an honour for me to work together with the UN to further increase and broaden the benefits of the ISS for mankind.

Thank you very much for your attention.

Mr. Chairman Thank you Mr. Dittus for your presentation. Since we don't have enough time, delegates who have questions please contact after this session to Mr. Dittus. The second presentation on my list is by Mr. T. Murakami of Japan entitled "Japanese international cooperation". Mr. Murakami, you have the floor.

Mr. T. Murakami (Japan) Thank you Chairman. Distinguished delegates and representatives it is my personal great pleasure and honour to participate in this session of the Committee and to briefly present Japan's international cooperation in the field of space.

When we mention international cooperation in the field of space, there are many layers to it. Each case of cooperation is equally important to Japan. And we make great effort to promote cooperation with countries around the world. To enhance cooperation and contribute to the development of countries around the world, we try to share the technology and knowledge that we have accumulated. Today I shall present examples for each stage of cooperation. The ISS programme and A-Train project are examples of international cooperation regarding leading technology and APRSAF as an example of our contribution of Asia region and Japan's cooperation with Turkey and Africa as a contribution to countries and regions outside of Asia.

ISS is manned orbital facility for cutting-edge research and development operated for peaceful purposes only. Another important aspect is that the ISS programme is the largest international programme in history, with the participation of 15 countries. Japan is the only nation from Asia participating in this programme.

Japans contributes to the ISS programmes through providing the Japan Experiment Module, we call Kibo, and H-II Transfer Vehicle, HTV. Kibo has the largest pressurized module in the ISS and our unique full scale external experiment area and has both a remote manipulator system. HTV is the sole transfer vehicle that can transfer large pressurized racks to the ISS. It is also able to transport large experimental payload to the ISS. We are expecting next HTV, HTV-IV, launch in the beginning of this August. May I also add that our Japanese astronaut, Mr. Wakata, is designated to board the ISS as the first Japanese commander of the ISS crew member this winter. Japan will continue contributing to the ISS programme through its cooperation with ISS partners.

Next example of our cooperation is A-Train. A-Train Earth observation satellite constellation run by NASA. NASA with the aim to share their remote sensing data, which is expected to contribute to the solution of the global water mechanism. JAXA is participating along with NASA and CNES utilizing Japan's remote sensing technology in this multinational Earth observation project. Japan will promote such international cooperation in solving issues such as climate change issues by sharing the data.

So, next is our regional cooperation, APRSAF. As for Japan's regional contribution, I would like to introduce APRSAF, the Asia-Pacific Regional Space Agency Forum in short, APRSAF, is a forum where various space-related organizations gather to exchange views, opinions and information on space activities in the Asia-Pacific region. This forum was established back in 1993 and holds annual meetings jointly organized by MEXT and JAXA as well as space agencies of host countries. It has become, it has become the largest space community in the Asia-Pacific region and it celebrates its 20th anniversary this year.

APRSAF was established with the goal of promoting and expanding space activities through the development of space technologies and its application for socioeconomic development in Asia and the Pacific region by providing a forum where various organizations, not only space agencies can exchange views on the mention relating to space activities, to enhance mutual beneficial cooperation. In view of the diversities of needs for space utilization and

development in the Asia-Pacific region. APRSAF provides an open and flexible framework rather than a rigidly bounded agreement. Therefore, participating parties carry out their activities on a voluntary basis.

The APRSAF currently consists of plenary and 4 working groups as shown in this slide. And also endorses the implementation of joint project or what has, or known as initiatives in the APRSAF community. The structure of APRSAF with its open and flexible framework is an example of cooperation between various participating space related bodies initiated by Japan. Promoting the enhancement of their space activities. Here is an example of cooperation in the Asia-Pacific region in the use of ISS Kibo. JAXA is currently cooperating with the Malaysia Space Agency, ANGKASA, on the high quality protein crystallization experiment. It has done 6 times so far and will continue the cooperation in the future.

Regarding multilateral cooperation, JAXA is cooperating with 8 Asia-Pacific countries through the framework of the Kibo-ABC initiative which is a project to promote cooperativeness of Kibo module. Japan would like to continue on enhancing its contribution to the space development of the Asia-Pacific region through APRSAF.

Now I would like to present Japan's cooperation with countries outside the Asia-Pacific region. Taking advantage of Japan's accumulated space technology, we cooperating with countries is establishing space agencies and enhancing human resources. On this topic, I would like to give you two examples. The first example is Turkey. This is an example of bilateral cooperation. Turkey already has the experience in operating communication satellites and there are several active space-related organizations in Turkey. The effort is being made to establish a space agency in Turkey and there is great interest in enhancing human resources in the field of space and developing a new strategy cooperation with other countries. Under this circumstances, at the previous visit to Turkey, the Prime Minister of Japan expressed strong cooperation with Turkey in the field of space. Japanese Government presented several cooperative schemes to meet Turkey's specific needs.

First of all, Japan has experience and knowledge gained from space development of the past. And the establishment of Japan's space agency JAXA. We propose that we should share this experience in order to contribute to establishing Turkey's space agency. Also with extensive experience in developing human resources in the field of space, Japan proposed to offer a training programme based on Turkey's needs. This proposal was welcomed by Turkey and concrete cooperation was started. The concrete cooperation is as follows: in order to share our experience and contribute to establishing Turkey's space agency, we had a workshop this January. Around 80 people participated on the exchange opinions on the reasons from Japan's history of space development and recent trends in research and development. Also we had a training programme in Japan this February, based on Turkey's. We will continue to strengthen cooperation for mutual benefit by holding workshops in the future.

The second and final example of Japan's contribution, cooperation outside of Asia is Africa. African countries are developing at a significant rate and in this case of a such a large and broad continent, the use of space technology, especially satellites, is beneficial in the development of African countries. Also the enhancement of human resources will be further effective. Therefore, considering the needs of Africa, MEXT and JAXA will initiate a 3-step programme in the capacity-building of remote sensing using satellites in African countries. Each step is as follows.

The first step of this programme is to host the seminar and technical tour on remote sensing in Japan. We are expecting 20 or 30 participants from African embassies attachés in Japan. The seminar will consist of introduction of fundamental principles and examples of the application of remote sensing technology. Also, the technical tour will be conducted at Japan's leading facilities such as JAXA's both Tanegashima and Tsukuba Space Centers. It is scheduled to be held around twice this Autumn or later.

The second step is the basic workshop on the use of remote sensing. Countries that are interested further for remote sensing and will be very welcome to participate. The target participants for this workshop are engineers and the characteristic future of this step is that the workshop will be held in a certain host country in Africa. Therefore it will evoke the interest of many countries, organizations and people. And will encourage countries actively participate in this project. This step is scheduled next year and will enable participants to gain overall knowledge of remote sensing and on basic technology on how to process and analyse the data from Earth observation satellite.

The final step of this programme is technical training for remote sensing engineers. After step 2, countries that are waiting to complete the training are very welcome to take part in this final stage. The training is scheduled to be held in 2014 in Japan for a period of 2 weeks and participants will learn specific methods of how to use remote sensing data to solve their respective issues. Through this step, the participants will be able to acquire technology and expand it in their home countries. The enhancement of

human resources will enable countries to prosper socially and economically at their own hands in their own home. That is the aim of this project.

So, at the conclusion, the use of space technology such as data for remote sensing satellite is very effective in enhancing people's lives. By enhancing international cooperation, Japan is willing to share our experience, knowledge, technology and benefits. And also contribute to the entire world in improving the quality of life of all people.

Thank you very much for your attention.

Mr. Chairman Thank you Mr. Murakami for your presentation. Because of the time limitation, if the delegates wish to have questions, please contact Mr. Murakami after the session.

Distinguished delegates, I will shortly adjourn this meeting. Before doing so, I would like to inform delegates of our schedule of work for this afternoon. We will meet promptly at 3.00 p.m. At that time, we will continue our consideration of agenda item 4, General exchange of views, agenda item 5, Ways and means of maintaining outer space for peaceful purposes, and agenda item 7, Report of the Legal Subcommittee on its fifty-second session.

There will be three technical presentations this afternoon: by a representative of Canada entitled "Space Security Index 2013", by a representative of Japan and Malaysia entitled "20 years of history and future of the Asia-Pacific Regional Space Agency Forum (APRSAF)", and by a representative of China entitled "The latest developments of Beidou Global Navigation Satellite System".

This evening, starting at 7.00 p.m., the Office for Outer Space Affairs and the Association of Space Explorers are organizing the Women Astronauts and Cosmonauts Panel entitled "Women in Space: The Next 50 Years" at the Vienna Natural History Museum. The museum is located at Maria-Theresien-Platz in the 1st district. The event, which is open to the public, will feature the following panellists: Ms. Roberta Bondar of Canada, Ms. Janet L. Kavandi of the United States of America, Ms. Chiaki Mukai of Japan, and Ms. Liu Yang of the People's Republic of China. The Director of the Office for Outer Space Affairs, Ms. Mazlan Othman, will deliver a welcome address, and the panel will be moderated by Mr. Dumitru-Dorin Prunariu, President of the Executive Board of the Association of Space Explorers.

Finally, I wish to remind delegations that during lunch time today, starting at 2.00 p.m., there will be a screening of a video entitled "No Gravity". The video is 52 minutes in length, and it is presented by France and Germany. Delegations are cordially invited to the screening of this video.

Also during lunch time today, there will be informal consultations, organized by the delegation of Japan. The informal consultations will focus on the proposal for a new agenda item for the Legal Subcommittee, entitled "General exchange of information on non-legally binding United Nations instruments on outer space", which you will find in document CRP.6, and the discussion paper "Draft proposed work plan for a mechanism of cooperative deliberation for 'Space and sustainable development': Bridging COPUOS and STSC", presented by Japan. You will find this proposal in document CRP.8. The informal consultations will take place in conference room C4 on the seventh floor, from 2.00 p.m. to 3.00 p.m. today during lunch.

Are there any questions to this proposed schedule?

I see none.

This meeting is adjourned until 3.00 pm this afternoon.