

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

Unedited transcript

826th Meeting

Thursday, 31 March 2011, 10 a.m.

Vienna

Chairman: Mr. A. Talebzadeh (Islamic Republic of Iran)

The meeting was called to order at 10.09 a.m.

The CHAIRMAN Excellencies, distinguished delegates, ladies and gentlemen, good morning. I now declare open the 826th meeting of the Legal Subcommittee of the Committee on the Peaceful Uses of Outer Space.

I would like to inform you of our programme of work for this morning. We will continue our consideration of agenda item 3, general exchange of views. We will continue our consideration of agenda item 6(a) the definition and delimitation of outer space and (b) the character and utilization of the geostationary orbit. We will also begin our consideration of agenda 10, general exchange of information on national mechanisms relating to space debris mitigation measures. We will then adjourn this session so that the working group on agenda item (a) definition and delimitation of outer space, under the chairmanship of Mr. Monserrat Filho of Brazil, can hold its first meeting. Immediately after the working group meeting, the Chair of the working group under item 11, national space legislation, will have informal consultations on the draft report of the working group.

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

General exchange of views (agenda item 3)

Distinguished delegates I would now like to continue our consideration of agenda item 3, general exchange of views. The first speaker on my list is the distinguished representative of Poland. I give the floor to the distinguished representative of Poland.

Mr. G. ZYMAN (Poland) My delegation would like to congratulate you upon the assumption of the role of Chairman of our Legal Subcommittee, we are confident that, with your guidance and able leadership, the current session of our Legal Subcommittee will be fruitful and productive. We join the chorus of voices expressing our sincere condolences to the delegations of New Zealand and Japan who have suffered the tragic loss of life and material destruction resulting from the recent earthquake and tsunami. We express our solidarity with these nations and are confident that these brave and resilient people will come out of this tragedy even stronger.

My delegation is honoured to be a member of this august body which is celebrating its fiftieth anniversary. During this time, the Committee on the Peaceful Uses of Outer Space has had significant accomplishments in the promotion and progressive development of international space law. We are sure that this Committee will continue down this honourable path in the years to come. We would also like to recall that fifty years ago Yuri Gagarin became the first human to orbit the Earth. This fascinating event constituted a great achievement for all mankind and opened a new chapter for human exploration of outer space.

My delegation is deeply convinced that all activities of States in outer space should be conducted in accordance with the relevant norms of international space law. We appeal to all States that have not yet done so to adhere to the international treaties related to the peaceful uses of outer space. Guidelines adopted by this Subcommittee related to the peaceful exploration

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

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



and use of outer space should also constitute an important source of conduct for all States.

The issue of definition and delimitation of outer space has been on the agenda of this Legal Subcommittee for many years to no avail. It seems that the discussion is not only of legal but also of political character. States in favour of such delimitation speak of legal certainty in outer space whereas the opposing States raise the issue of the need to avoid hampering technical progress in outer space. My delegation is open to any new proposals aimed at finding compromise and encourages others to conduct their activities in the same spirit.

My delegation is deeply concerned about the growing number of space debris. According to estimates, 95 per cent of all objects in outer space are debris. This is an alarming figure and a problem which needs to be addressed urgently otherwise we risk putting all future space activity in jeopardy.

Allow me to inform you about the issue of capacity building in space law. The Polish Government promotes the active participation of Polish teams in the Manfred Lachs Space Law Moot Court Competition organized annually by the International Institute of Space Law. Preparations for this Moot Court are of significant importance for the international law faculties of the leading universities in Poland, such as the University of Warsaw, Krakow or Toruń, where space law forms part of the general course on international law.

In conclusion, my delegation would like to emphasize that the peaceful use of outer space should be available to all States. In this respect, international cooperation amongst space agencies and universities is of major importance and will contribute to the progressive development of this area of science. Thank you.

The CHAIRMAN I thank the distinguished representative of Poland for a very good statement.

The next speaker on my list is the distinguished representative of Tunisia. I give the floor to the distinguished representative of Tunisia, Mr. Bacha.

Mr. S. BACHA (Tunisia) (*interpretation from Arabic*) I would like at the outset to express, on behalf of the Tunisian delegation, our sincerest condolences to New Zealand and Japan as a result of the earthquake and tsunami that have befallen those two countries. We are also very pleased to participate

in this fiftieth session of this Legal Subcommittee of COPUOS, the Tunisian Republic is now an official member of that Committee. Our membership has come after years of requesting to accede to it and we have finally acceded to it thanks to the support given by the brotherly and friendly countries to us. Here we would like to thank and express our gratitude to all these countries for all the support given to us. We are also happy to see that the membership of Tunisia coincides with the drastic changes that our country has experienced in 2011. We are moving towards establishing a democratic, modern State, that would achieve the aspirations of our people, that would be more just and humane and let cooperation and solidarity with the rest of the world underpin our foreign policy. We would also like to express here our support to you in all areas and would like to express the keenness of Tunisia to act in any manner possible to contribute to the noble goals of this United Nations body.

Tunisia has always strived to develop international cooperation in the peaceful uses of outer space. Our Committee here has shown that it was the most competent body to play a pivotal role in this regard. Our country has already established its National Committee for Outer Space in 1984 as well the National Centre for Remote Sensing in 1988. We have built capacities and undertaken activities and research as well as scientific applications in the domain of outer space and we have established excellent cooperation with all countries.

Tunisia also has used all its space technology regarding the management of natural resources, preservation of such resources as well as the management of natural disasters, the study of climatic changes and the link between those changes and the deterioration of the environment.

Regarding the space industry. We have limited our national activities to some research which is to be developed nationally in this regard and in the future. We have priorities that belong to our national space programme and the strategy to apply such a programme.

Considering the scientific and technological development in the use of outer space for peaceful purposes, we have also established an update of our mechanisms within our National Committee and we have started to review the legal framework established for the structure of our National Committee. In this regard, Tunisia would resort to member States and competent institutes to seek help regarding the determination and development of the components of

our national outer space programme so that we can establish appropriate rules.

The accession of Tunisia officially to COPUOS shows how determined we are to expand our international cooperation so that we can access space and use it for peaceful purposes especially with regard to the remote sensing of the Earth, to undertake research in climate change, exchange information regarding the environment and reduce the impact of disasters and provide relief when they happen.

I would like here to thank you, Mr. President, and all member States for having again supported Tunisia in becoming a member of COPUOS and wish you all success. Thank you.

The CHAIRMAN I thank the distinguished representative of Tunisia for a very good statement.

The next speaker on my list is the distinguished representative of Germany. I give the floor to the distinguished representative of Germany.

Mr. B. SCHMIDT-TEDD (Germany) The German delegation wishes to extend its gratitude to your able chairmanship of the Legal Subcommittee in 2011, we are looking forward to another fruitful meeting under your chairmanship. We express our appreciation to Professor Othman and her team for the work accomplished during the past year and in the preparation of this session. Let me express our condolences to the delegation of Japan for the loss of lives caused by the devastating earthquake and tsunami, our thoughts are with the people of Japan and all victims affected by this catastrophe.

On 30 November 2010, the German Federal Cabinet adopted the Federal Government's space strategy which was submitted by the Federal Ministry of Economics and Technology. This new strategy underlines a great significance of space technology as a key technology for the future. It meets key challenges in the fields of climate protection, mobility, communications and safety. The strategy sets specific policy priorities, these include expanding space research, tapping new markets, promoting stronger links between various stakeholders in Europe, space cooperation, safeguarding technological independence, ensuring access to space and creating a uniform legal framework.

The future German space act will focus on implementing the United Nations space treaties. Germany is Party to four space treaties, the Outer Space Treaty, the Rescue and Return Agreement, the

Liability Convention and the Registration Convention and performs its activities in outer space in accordance with these treaties.

The future German space act will cover licensing matters, the registration of space objects, liability and insurance issues. The details are currently being elaborated by the Federal Ministry of Economics and Technology. The discussions in the Legal Subcommittee and in the working group concerning the item of national space legislation proved to be useful for this national drafting process.

As far as the registration of space objects is concerned, Germany has fulfilled its obligations according to the Convention on the Registration of Objects Launched into Outer Space. In 2010, two German space objects were launched into outer space and registered with the United Nations. TanDEM-X an Earth Observation Satellite with an active radar sensor and ComSat BW 2, a communication satellite. The notifications are made available on the UNOOSA website.

Germany recognizes the importance of international cooperation in the peaceful exploration and use of outer space. The German Aerospace Center has concluded a cooperation agreement with the National Space Agency of the Republic of Kazakhstan; an implementing agreement with Brazil and, a framework agreement with the National Aeronautics and Space Administration of the United States on cooperation and the exploration and use of outer space for peaceful purposes during the last year.

The current catastrophe in Japan has proved the value of UN-SPIDER and the International Charter Space and Major Disasters. Germany is glad being able to contribute to those efforts with the Center for Satellite Based Crisis Information (ZKI). Thank you.

The CHAIRMAN I thank the distinguished representative of Germany for a very good statement.

Are there any other delegations wishing to make a statement under this agenda item? I see none.

We will continue our consideration of agenda item 3, general exchange of views, this afternoon.

The definition and delimitation of outer space
(agenda item 6(a))

Distinguished delegates I would now like to continue our consideration of agenda item 6(a) the definition and delimitation of outer space.

The first speaker on my list is the distinguished representative of the Group of 77 and China, His Excellency, Ambassador Puja from Indonesia. I give the floor to His Excellency, Ambassador Puja of Indonesia.

Mr. I. PUJA (Group of 77 and China) I have the honour, on behalf of the Chairman of the Group of 77 and China, to deliver a statement on agenda item 6(a) the definition and delimitation of outer space.

The Group of 77 and China would like to thank the Secretariat for the prepared communication on the definition and delimitation of outer space including the questionnaire and responses by member States related to this issue. The Group would also like to thank the presenters and the Secretariat for the symposium on "a fresh look on the delimitation of airspace and outer space" that took place last Monday.

The Group of 77 and China would also like to convey its appreciation to the Chairman of the Working Group on Definition and Delimitation of Outer Space, José Monserrat Filho of Brazil, for the work he has done in facilitating discussion in order to reach consensus among member states on this issue.

Since COPUOS was established fifty years ago, space activities and technology have developed tremendously and are becoming more complex. Nevertheless, this matter has remained on its agenda for fifty years. Despite lengthy debates, no consensus so far has been reached on the definition and delimitation of outer space.

Definition and delimitation of outer space will help to address legal clarity in the implementation of outer space law and airspace law. The Group of 77 and China encourages the Subcommittee to reinvigorate its efforts on this issue and stands ready to continue participating constructively in substantive discussions. Thank you.

The CHAIRMAN I thank His Excellency, Ambassador of Indonesia, on behalf of the Group of 77 and China.

The next speaker on my list is the distinguished representative of the United States of America. I give the floor to the distinguished representative of the United States, Mr. Samuel McDonald.

Mr. S. McDONALD (United States of America) Thank you for affording me this chance to present the United States views on matters relating to the definition and delimitation of outer space and to the character and utilization of the geostationary orbit including consideration of ways and means to ensure the rational and equitable use of the geostationary orbit without prejudice to the role of the International Telecommunication Union (ITU).

I would like to begin by commenting on the first part of this agenda item concerning matters relating to the definition and delimitation of outer space. As we have stated on previous occasions, the United States is of the view that there is no need to seek a legal definition or delimitation of outer space. The current framework has presented no practical difficulties and indeed activities in outer space are flourishing. Given the situation, an attempt to define or delimit outer space would be an unnecessary theoretical exercise that could potentially complicate existing activities and that might not be able to anticipate continuing technological developments.

The current framework has served us well and we should continue to operate under the current framework until there is a demonstrated need and a practical basis for developing a definition or delimitation. This Subcommittee can operate most effectively and make its most significant contributions when it focuses its attention on practical problems which are not apparent here.

With respect to the geostationary orbit (GSO), I would like to state my government's continuing commitment to equitable access to the GSO by all States including satisfaction of the requirements of developing countries for GSO use and satellite telecommunications generally. From the legal point of view, it is clear that the GSO is part of outer space and its use is governed by the 1967 Outer Space Treaty as well as the International Telecommunication Union's treaties. As set forth in article 1 of the Outer Space Treaty, 'outer space shall be free for exploration and use by all States without discrimination of any kind on a basis of equality and in accordance with international law'. Article 2 of this Treaty further provides that 'outer space is not subject to national appropriation by claim of sovereignty, by means of use or occupation or by any other means'. These articles make clear that a

Party to the Outer Space Treaty cannot appropriate a position in outer space such as an orbital location in the GSO either by claim of sovereignty or by means of use or even repeated use of such an orbital position.

As I previously stated, the United States is committed to equitable access to the geostationary orbit and takes numerous actions to further the use of the geostationary orbit and other uniquely situated orbits as part of the province of all mankind. These actions include free provision of its Global Positioning System, free provision of a variety of weather and warning data from its meteorological satellites, information from the National Oceanic and Atmospheric Administration's polar meteorological satellites, data from the Geostationary Operational Environmental Satellites including information about hurricanes, volcanic eruptions and effluent flooding, droughts and related environmental matters and storm tracking data.

Additionally, in cooperation with Russia, France and Canada, the United States participates in the international satellite-aided search and rescue programme, known as Cospas-Sarsat, to provide means for ships, aircraft and others in distress to signal their need for help and their locations. We appreciate your consideration of our views on this agenda item. Thank you.

The CHAIRMAN I thank the distinguished representative of the United States for a very good statement.

The next speaker on my list is the distinguished representative of Venezuela. I give the floor to the distinguished representative of Venezuela.

Ms. A. CAMPOS (Venezuela) (*interpretation from Spanish*) The Bolivarian Republic of Venezuela believes that, though it is true that there has not been any controversy thus far between States on the subject of this item, technological progress and the use of the outer space area by States make it necessary to plan in a clear and determinate fashion, that there should be rules that allow us to establish a delimitation between airspace and outer space. As a result thereof we need to point out what the applicable legal regime is in one and the other case.

A diversity of views and positions of member States on this topic makes it very difficult to establish a definition that would fully satisfy the expectations of States. This is why this delegation believes that it is necessary to have the topic remain on the agenda for discussion in the context of this Subcommittee in order

to achieve agreements that are reached on the basis of consensus so that in future we may have legal instruments such that we have every legal certainty in terms of sovereignty over airspace in this way guaranteeing the full freedom to use outer space as contained in the present principles.

Finally, we are much in favour of the work of the chairperson, the Working Group on the Delimitation of Outer Space, Dr. Monserrat Filho. We are sure that his experience will lead us to the required consensus in this regard. Thank you.

The CHAIRMAN I thank the distinguished representative of the Bolivarian Republic of Venezuela for a very good statement.

Are there any other delegations wishing to make a statement on this agenda item (a) the definition and delimitation of outer space? I see none.

The character and utilization of the geostationary orbit, including consideration of ways and means to ensure the rational and equitable use of the geostationary orbit without prejudice to the role of the International Telecommunication Union (agenda item 6(b))

I would like to continue our consideration of agenda item 6(b) the character and utilization of the geostationary orbit.

The first speaker on my list is on behalf of the Group of 77 and China, His Excellency, Ambassador of Indonesia, Mr. Puja. I give the floor to His Excellency, Ambassador of Indonesia, on behalf of the Group of 77 and China.

Mr. I. PUJA (Group of 77 and China) On behalf of the Group of 77 and China I have the honour to convey the statement on agenda item 6(b).

The Group of 77 and China would like to thank the Secretariat for the preparations of this agenda item and would also like to share its views with the Subcommittee on this item.

The geostationary orbit is a limited resource which has great potential for the implementation of a wide array of programmes to benefit our countries. The Group of 77 and China is concerned by the risk of saturation that threatens the sustainability of space activities in this environment. The utilization of this orbit spectrum must be rationalized and extended to all States in conditions of equality, taking into account the

necessities and interests of developing countries and the geographical location of certain countries in compliance with the established principles in the normative framework and the decisions made by both ITU and other relevant bodies of the UN system, giving priority to the contributions of space activities to sustainable development and the achievement of the Millennium Development Goals.

This topic should be considered within the COPUOS and its two Subcommittees in an entirely interstate environment. Thank you.

The CHAIRMAN I thank the distinguished representative of Indonesia on behalf of the Group of 77 and China for a very good statement.

The next speaker on my list is the distinguished representative of Peru on behalf of GRULAC, Ms. Espinoza. I give the floor to the distinguished representative of Peru on behalf of GRULAC.

Ms. A. ESPINOZA (On behalf of GRULAC) (*interpretation from Spanish*) The Peruvian delegation is pleased to speak on behalf of the Group of Latin American and Caribbean Countries under agenda item 6(b) character and utilization of the geostationary orbit.

We would reiterate our position in that this natural resource, since it is limited, is in danger of saturation which is why we believe that its use must be rationalized and must be made available to all States giving them the possibility to have access to the geostationary orbit in equitable conditions, particularly bearing in mind the needs and interests of developing countries and the geographical position of certain countries in keeping with the principles established in the standards setting context of ITU and other norms and decisions of the United Nations.

From this perspective and in order to ensure sustainability of this _____(?) GRULAC believes it is necessary to consider this topic and keep it on the agenda of this Subcommittee in an intra-State context through the creation of working groups or intergovernmental panels as required for this purpose. Thank you.

The CHAIRMAN I thank the distinguished representative of Peru on behalf of GRULAC for a very good statement.

Are there any other delegations wishing to make a statement under this agenda item? I see none.

We will therefore continue our consideration of agenda item 6(a) the definition and delimitation of outer space and (b) the character and utilization of the geostationary orbit, this afternoon.

General exchange of information on national mechanisms relating to space debris mitigation measures (agenda item 10)

Distinguished delegates, I would now like to begin our consideration of agenda item 10, general exchange of information on national mechanisms relating to space debris mitigation measures.

The first speaker on my list is the distinguished representative of Indonesia on behalf of the Group of 77 and China. I give the floor to His Excellency, Ambassador of Indonesia, Mr. Puja.

Mr. I. PUJA (Group of 77 and China) Once again, on behalf of the Chairman of the Group of 77 and China, I have the honour to deliver the statement of the Group of 77 and China on agenda item 10, general exchange of information on national mechanisms relating to space debris mitigation measures.

The Group of 77 and China would like to thank the Secretariat for the preparations of this agenda item and would also like to share its views with the Subcommittee on this item.

The Group considers that the future of space activities largely depends on the mitigation of space debris. This topic should continue to be treated as a priority with the view to further increase research in the areas of technology for space debris observation, space debris environmental modelling and technologies to protect space systems from space debris and to limit substantially the creation of additional space debris.

In this regard, implementation of the Space Debris Mitigation Guidelines is of the utmost importance. The research in the areas of technology to be carried out and its possible outcome would improve the Guidelines and keep them up to date with new techniques and capabilities of detection and reduction of space debris, in accordance with resolution 62/217 of the General Assembly.

The Group considers important that a review on the effectiveness of the Space Debris Mitigation Guidelines to be undertaken by the Legal Subcommittee. Thank you.

The CHAIRMAN I thank His Excellency, Ambassador of Indonesia, on behalf of the Group of 77 and China, for a very good statement.

The next speaker on my list is the distinguished representative of Japan. I give the floor to the distinguished representative of Japan, Mr. Osawa.

Mr. T. OSAWA (Japan) I am very pleased to address the fiftieth session of the Legal Subcommittee of COPUOS regarding domestic mechanisms used by Japan in the mitigation of space debris activities.

Enshrined within Japan's basic space law, enacted in May 2008, is a notion that space exploration and utilization should be carried out with consideration for the preservation of the space environment. The basic plan for space policy, published in June 2009 under the basic space law, states that it is necessary for Japan to observe space objects in order to understand the population of debris and to make efforts to limit the generation of debris as well as to conduct research and development technologies to remove current debris.

The Japan Aerospace Exploration Agency (JAXA), who plays a central role in Japanese space activities, established the JAXA Space Debris Mitigation Standard in 1996. The current standards complied with the UN Space Debris Mitigation Guidelines adopted by the General Assembly in 2007 and with ISO 24113 Space Debris Mitigation Standard established by the International Standard Organization (ISO) in 2010. In order to conduct appropriate space activities, JAXA has also improved its organizational structure.

In JAXA's domestic mechanism for space debris mitigation, spacecraft and launch vehicle design and operational plans are reviewed during each of their development phases to ensure compliance with the JAXA Space Debris Mitigation Standard eventually UN Space Debris Mitigation Guidelines. These technical reviews are conducted and confirmed at the management level. For example, the JAXA Space Debris Mitigation Standard requires that all ____ (?) energy sources of launch vehicles and spacecraft be removed at the end of the operation to prevent explosions as these energy sources are a major cause of deterioration of the orbital environment. As a result, Japanese spacecraft have not experienced ____ (?) which generated large amounts of debris.

In accordance with the UN Space Debris Mitigation Guidelines and ITU recommendations, all Japanese ____ (?) and JAXA satellites have been

disposed to the outside of the geosynchronous Earth orbit, GEO region, to preserve the space environment. However, the disposal of mission-terminated spacecraft in the low Earth orbital region, in compliance with the UN Space Debris Mitigation Guidelines, is sometimes difficult in the case of small satellites which do not have a propulsion system to reduce their orbital lifetime. We understand that ____ (?) and the operational improvements are necessary to deal with this situation.

Furthermore, in order to avoid collision among operating satellites and other objects, JAXA is analysing collision probability daily and will conduct collision avoidance manoeuvres if necessary. Actual collision avoidance manoeuvres have been conducted only once in recent years. I am very pleased to be able to present one recent example of the successful active removal of mission-terminated space systems in the region of the low Earth orbit, Kounotori, named after the white oriental stork, our cargo transporter to the International Space Station, successfully controlled its re-entry into a space ocean area, just yesterday.

Japan is engaged in research and development work in cooperation with universities. Current research focuses on technology for observation of small objects, protection from impact of tiny debris and active and efficient removal of mission-terminated spacecraft. Active removal is especially important because collision among debris, followed by a chain reaction of collisions, will become a dominant factor leading to an increase of debris in the future.

In addition to this we recognize that there are several issues, including that of active removal, which need to be addressed in the near future through international cooperation.

Japan will continue to make efforts to further mitigate space debris. The working group for legislation on space activities in Japan, which was organized to develop a new Japanese space law and as a special committee on space policy recently submitted an interim report in which it was recommended that space debris mitigation should be an obligation for launch service providers and satellite operators. We hope that all nations and organizations will take action to implement the UN Guidelines preventing accidents caused by space debris. Thank you.

The CHAIRMAN I thank the distinguished representative of Japan for a very good statement.

The next speaker on my list is the distinguished representative of India. I give the floor to the distinguished representative of India.

Ms. R. RAMACHANDRAN (India) India attaches utmost importance to the issue of space debris as a potential threat posed by man-made space debris to all space assets and thereby to their applications as well raises concern over the long-term sustainability of outer space activities for peaceful purposes.

The Indian Space Research Organisation (ISRO) has been implementing appropriate mechanisms in the design and operational phases of all the launch vehicle and satellite missions in order to mitigate the possible creation of space debris. The Polar Satellite Launch Vehicle (PSLV) which uses Earth-storable propellants has been designed with a propellant venting system and the Geostationary Satellite Launch Vehicle (GSLV) has been equipped with a passivation system in its cryogenic upper stage to serve at the end of its useful mission life. Thus, the possibilities of on-orbit fragmentations are minimized. The geostationary satellites which are designed with adequate margins of fuel are promptly de-orbited at the end of their useful mission life.

ISRO has developed mathematical models and algorithms to predict the close approach of debris to orbiting functional satellites. For the launch of GSLV-D3, PSLV-C15 and GSLV-F06 missions, which took off on 15 April 2010, 12 July 2010 and 25 December 2010, respectively, collision avoidance (COLA) analysis were carried out to identify the safe lift-off times within the designated launch windows. After injection of spacecraft passivation of the upper stages of these missions were successfully executed and monitored. India has been carrying out Space Object Proximity Awareness (SOPA) analysis for its entire operational low Earth orbit (LEO) spacecrafts for the last two years on a daily basis to assist the collision risk to its space assets as well as to determine appropriate risk mitigation strategies in advance. Last year in one instance, to reduce the risk of collision with an operational spacecraft, one of the Indian LEO satellites, IRS-P6, was made to manoeuvre for collision avoidance and for subsequent orbital relocation.

In this context, it may be noted that satellite conjunction assessments require precise orbital trajectory information. Hence efforts should be on track to expand the quantity and quality of satellite conjunction assessments by encouraging the exchange of information among various satellite operators. ISRO participated in the 2010 re-entry test campaign of the Interagency Space Debris Coordination Committee on

the prediction of re-entry of Vostok, SL-3/A-1 3rd stage. This campaign started on 20 April 2010 and concluded on 30 April 2010.

It is evident that orderly conduct of space exploration activities in the future will largely depend on implementation of the Space Debris Mitigation Guidelines by all. We would urge all member States to follow the Space Debris Mitigation Guidelines endorsed by the UN General Assembly on a voluntary basis in letter and spirit. Assured safety and security of space assets is in the interest of all and of paramount importance for prospering together. India strongly believes that exchange of information on space debris research through international cooperation and through global implementation of the Space Debris Mitigation Guidelines could promote a sustainable space environment for generations of future mankind to enjoy the fruits of space research. Thank you.

The CHAIRMAN I thank the distinguished representative of India for a very good statement.

Are there any other delegations wishing to make a statement under this agenda item? I see none.

We will therefore continue our consideration of agenda item 10, general exchange of information on national mechanisms relating to space debris mitigation measures, in the afternoon.

Distinguished delegates, I will shortly adjourn this meeting so that the working group on agenda item 6 can hold its first meeting under the chairmanship of Mr. Monserrat Filho of Brazil. Before doing so, I would like to remind delegations of our schedule of work for this afternoon. We will meet promptly at 3 p.m. At that time we will continue our consideration of agenda item 3, general exchange of views; agenda item 6(a) the definition and delimitation of outer space and (b) the character and utilization of the geostationary orbit. We will also continue our consideration of agenda item 10, general exchange of information on national mechanisms relating to space debris mitigation measures.

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

Finally, I would like to remind delegations that you are all invited to attend the opening of an exhibition entitled 'Space about a dream', that will take place today, Thursday, 31 March at 7 at the Kunsthalle, Vienna. The exhibition will be opened by the Austrian President Heinz Fischer and will include an address by Mr. Franz Viehboeck, former Austrian astronaut.

I give the floor to Mr. Niklas Hedman from the Secretariat.

Mr. N. HEDMAN (Secretariat) Just an announcement by the Secretariat. Tomorrow morning there will be a continuation of today's informal consultations on the commemorative segment of COPUOS to be held on 1 June and on the 2011 declaration. These informal consultations will take place in Room M7 at 9-10 a.m. tomorrow morning, Friday, 1 April. Thank you.

The CHAIRMAN I thank Mr. Niklas Hedman for your statement.

I now invite Mr. Filho of Brazil to hold the first meeting of the Working Group on the Definition and Delimitation of Outer Space.

This meeting is adjourned until 3 p.m. today.

The meeting closed at 11.02 a.m.