

**Committee on the Peaceful  
Uses of Outer Space***Unedited transcript*

607<sup>th</sup> Meeting  
Wednesday, 10 June 2009, 10 a.m.  
Vienna

---

*Chairman:* Mr. Ciro Arévalo Yepes (Colombia)

*The meeting was called to order at 10.15 a.m.*

**The CHAIRMAN.** (*interpretation from Spanish*) Distinguished delegates, I call to order the 607th meeting of the Committee on the Peaceful Uses of Outer Space.

This morning we will re-open agenda item 8, report of the Legal Subcommittee on its forty-eighth session, as we have received a request from Canada and from Mexico to address the Committee on this item.

We will then continue and hopefully conclude our consideration of agenda item 9, spin-off benefits of space technology. Continue item 12, space and climate change, item 13, use of space technology in the United Nations system and begin our consideration of item 14, the use of space-derived geospatial data for sustainable development. Time permitting, we will also begin our consideration of agenda item 10, space and society and agenda item 11, space and water.

This morning there will be four technical presentations. The first one by a representative of Poland, entitled: Polish students space activities. The second by a representative of Spain, entitled: astronomy: the great Canary telescope and dark skies. The third by a representative of Colombia, entitled: space technology to support sustainable development in Colombia and the fourth by a representative of the United States, entitled: report on the activities of the Space Policy Institute.

Now I am re-opening agenda item 8, report of the Legal Subcommittee. The first delegation on my list is Canada.

**Ms. P. WILLIAMS** (Canada) Thank you Mr. Chairman. Canada is pleased to note that the Legal Subcommittee has had another successful meeting at its forty-eighth session under the very able chairmanship of Mr. Vladimir Kopal of the Czech Republic. It established a working group on national legislation relevant to the peaceful exploration and use of outer space which serves to further promote acceptance of the outer space treaties and assist States to further develop their own national legislation. Canada was pleased with the discussions and exchange of information that took place in the working group and we look forward to the continuation of its work at next year's session. Canada lauds those countries that are parties to the outer space treaties and would encourage those countries which have not ratified the key conventions governing the exploration and use of outer space, notably the Outer Space Treaty, the Rescue and Return of Astronauts Agreement, the Liability and Registration conventions, to do so as soon as possible. Canada believes that it is important that there is synergy in the work that is carried out in the Scientific and Technical Subcommittee and in the Legal Subcommittee and that such collaboration can only help to improve the quality of deliberations and the policy outcomes.

In this regard, Canada welcomed the inclusion of an exchange of information on national mechanisms relating to space debris mitigation measures on this year's agenda of the Legal Subcommittee. The recent collision of the Cosmos and Iridium satellites and other incidents in outer space in recent years underline the need for greater coordination of space activities through the tracking, monitoring and dissemination of information on space debris. The Legal Subcommittee, in urging States to continue their efforts to implement the Space Debris Mitigation Guidelines and to study

---

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.



the experience of States that have already established national regulatory frameworks governing space debris mitigation is reinforcing the efforts of the Scientific and Technical Subcommittee. Canada has taken steps to implement the guidelines into its regulatory framework and practices and we will continue to search for innovative ways to address the issue of space debris mitigation.

Mr. Chairman, Canada noted the good progress made on the draft protocol on matters specific to space assets to the convention on international interests in mobile equipment, the protocol. Canada believes the structure of the steering committee, which promotes collaboration between governments and the commercial space and financial communities that will be directly affected by the protocol, is an excellent model for addressing issues involving the peaceful use of outer space by non-State actors. Canada looks forward to an update from UNIDROIT on its progress at the next meeting of the Legal Subcommittee in 2010.

Mr. Chairman, with the number of space actors, in particular non-State actors, increasing annually, it is important to have a well-functioning Legal Subcommittee which addresses all the emerging issues even if there is no immediate consensus on the way forward. Such debate will contribute to clarifying issues and ultimately lead to greater understanding of what is at stake. This understanding can only contribute to sounder practices in the preservation of the peaceful uses of outer space. Thank you Mr. Chairman.

**The CHAIRMAN.** (*interpretation from Spanish*) I would like to thank Madam Williams of Canada for her contribution. There are issues that arise and obviously the Legal Subcommittee is the right forum for treating these issues and it has been very active in confronting these issues and the need for international cooperation in that regard. Thank you very much for your contribution.

The next delegation on my list is Mexico. I see that Dr. Sergio Camacho, my distinguished friend, is here.

**Mr. J. GONZÁLEZ BERNAL** (Mexico) (*interpretation from Spanish*) Thank you Chairman. Since this is the first time that the Mexican delegation has taken the floor during this session, let me tell you that my delegation welcomes you once again in the Chair of this Committee. We are sure that, under your skilled leadership, the Committee will successfully accomplish its goals and we commit ourselves to help you in every way.

My delegation associates itself with the statement of the distinguished representative of Bolivia on behalf of GRULAC. We would also like to convey our gratitude to the Office for Outer Space Affairs for their excellent organization of this session of the Committee.

Mr. Chairman, the delegation of Mexico notes with satisfaction progress achieved by the Legal Subcommittee during its last session under the very skilful direction of its Chairman, Professor Vladimir Kopal, and we have noted its report contained in A/AC.105/935. This delegation supports the suggestion that the report be approved.

Mr. Chairman, distinguished delegates, the delegation of Mexico appreciates the report of the working group on the status and application of the five United Nations treaties on outer space presented by its chairman, Professor Vassilis Cassapoglou. We agree that this working group should continue its work for another year throughout the forty-ninth session of the Subcommittee.

The delegation of Mexico also appreciates the intensive work carried out by Mr. Monserrat Filho, chairman of the working group on the definition and delimitation of outer space and, Madam Irmgard Marboe, chairman of the working group on national legislation pertaining to the exploration and utilization of outer space for peaceful purposes and we appreciate the reports of those two working groups.

Mr. Chairman, the delegation of Mexico highly values the work carried out on item 4, information on the activities of international intergovernmental and non-governmental organizations relating to outer space law; item 9, general exchange of information on the national mechanisms relating to measures for space debris mitigation and; item 10, general exchange of information on national legislation pertaining to the exploration and utilization of outer space for peaceful purposes. The rich debate that took place on these agenda items is particularly useful to countries that are in development and are in the process of forming their space policies and legislation.

The Mexican delegation has a special interest in item 8, capacity-building in the area of space law. In this context, my delegation believes it is particularly important to underscore the significance of the work of the Office for Outer Space Affairs in the way of coordinating the work of a group of internationally renowned experts on the preparation of curricula on outer space law. The Regional Centre of Space Science and Technology Education for Latin America and the

Caribbean is participating in this process and will introduce this curricula once the work is accomplished.

Mr. Chairman, as delegation's are aware, Action Team 14 on near-Earth objects is preparing a preliminary report on the decision-making process in case of the risk of impact between asteroids and our planet. This document will be submitted to the Scientific and Technical Subcommittee at its session in the year 2010 for its consideration. We anticipate that, during their consideration, questions will arise of a political and legal nature pertaining to the responsibility and liability that might arise on the part of a space agency which will be in charge of a deflection mission, possible agreements as to the compensation for damage caused by such impact, displacement of people in case of evacuation across borders. The consideration of these and other related issues will take a lot of time and the Scientific and Technical Subcommittee should put it in its multi-annual plan.

This delegation believes that we should ask a university to put together, jointly with the International Institute on Space Law and possibly the International Astronautical Academy, an international group of experts in the space law and policies and prepare a report on the political and legal aspects associated with the mitigation of a possible asteroid impact. Such a report will be submitted to Action Team 14 for its consideration at the time of Scientific and Technical Subcommittee's session. Thank you very much, Mr. Chairman.

**The CHAIRMAN.** (*interpretation from Spanish*) I thank the Mexican delegation for its statement.

Now we continue our consideration of agenda item 9, spin-off benefits of space technology, since I have no delegations on my list under item 8 at this point. On item 9, the first delegation... no, I do not have any delegations on my list on item 9.

In that case, we are moving on to item 12 and this is space and climate change.

No, coming back to item 9, Romania has asked for the floor, distinguished delegate.

**Mr. D. PRUNARIU** (Romania) Mr. Chairman, distinguished delegates. ... supports the proposal made by the delegation of Mexico with regard to the legal aspects connected to near-Earth objects and we consider that such initiatives, as the project proposed, are very helpful for the work of COPUOS and its

committees outlining in a very documented way, where further research, analysis and discussions may be required, come up with conclusions as to where gaps, overlaps in consistency, lack of clarity exists and possibly offering some recommendations on how such shortcomings in the \_\_\_\_ (?) and legal framework could be addressed. Such research projects, sustained by COPUOS and its subcommittees, could split up their activity, always very charged with consistent debates on more and more numerous agenda items. Thank you Mr. Chairman.

**The CHAIRMAN.** (*interpretation from Spanish*) Very well, thank you very much. So we have received an endorsement of Mexico's proposal on this very important issue. Thank you.

Now, as I have already said, we are taking up item 12, space and climate change. I have two delegations on my list, from Canada, Madam Marie Lan Phan and Saudi Arabia.

**Ms. A-M. PHAN** (Canada) Mr. Chairman, Canada is pleased to report on activities in Canada under this new agenda item.

Canada is currently developing a ten-year strategic plan that deals upon our remarkable heritage in space. The Long-Term Space Plan, LTSP, will look to sustain and enhance Canada's space capabilities and capacity in order to address national needs and priorities over the next decade. As part of the LTSP, Canada will strategically select, build and operate, the space and ground assets it needs in order to deliver information in areas such as, environmental and disaster monitoring and weather prediction, including contributions to international space missions. A particular emphasis will be placed on monitoring and predicting changes in Canada's fragile polar regions. One key element of the LTSP will be to design, build and operation of Canadian satellites and space instruments as well as the establishment of international collaboration to obtain data and perform space research related to the environment, the climate and space weather.

Under the current Canadian space tragedy, Earth observation is one of four core priorities for Canada. Canada, like many nations, has recognized that space-based observation of the Earth provides unique and essential information in understanding and predicting the near and long-term effects of climate change.

The Canadian Space Agency, CSA, supports Canadian scientists in the provision of key space assets

relating to climate change as well as validating the measurements derived from space-borne observations with an aim to understand climate change processes and improve climate change predictive models.

Ongoing science operations at the CSA, contributing to improved understanding of climate change, include the following atmospheric science-based missions.

1. Measurement of pollution in the troposphere, MOPITT, on NASA's Terra satellite launch in 1999, measuring lower atmospheric carbon monoxide concentrations globally.

2. Optical spectrograph and infrared imager, OSIRIS, on Sweden's Odin satellite launch in 2001, measuring vertical profiles of stratospheric ozone, aerosols and related gases.

3. Atmospheric Chemistry Experiment, ACE, on Canada's SCISAT satellite, launched in 2003, measuring vertical profiles of \_\_\_\_ (?) atmospheric constituents. SCISAT data is used to validate measurements made by other satellites and to explore the relationship between atmospheric chemistry and climate change.

4. CloudSat validation and algorithm development. CloudSat data helps improve our understanding of clouds, the largest source of uncertainty in global climate models.

Canada contributes research data from its ongoing space-borne science instruments and from its validation campaigns, \_\_\_\_ (?) instrument observations, which are freely available to the international atmospheric science community. Furthermore, RadarSat-1 data will provide to the International Polar Year and the global research community. Canadian departments, such as Environment Canada and Natural Resources Canada, are using these satellite data for the purpose of conducting climate change studies.

In terms of future investments, the RadarSat constellation is the next evolution of the RadarSat programme with the objective of ensuring sea-bed data continuity, enhance operational use of synthetic aperture radar data and improve system reliability over the next decade. The RadarSat constellation mission is being designed for three main uses.

1. Maritime surveillance: ice, wind, oil pollution and ship monitoring.

2. Disaster management: mitigation, warning, response and recovery.

3. Ecosystem monitoring: forestry, agriculture, wetlands and coastal change monitoring.

This mission will also allow regular measurement of change in the permafrost and on coastlines as well as monitoring the infrastructure through a regular production of coherent change maps.

Amongst the missions under consideration is a new satellite, highly elliptical polar mission, which is to gather near real-time meteorological and space weather information over the Canadian Arctic. It offers potential opportunities for collaboration with circumpolar nations. Also, future atmospheric science missions being studied focus on improving our understanding of atmospheric processes of climate and exchange as well as missions that support long-term observation of parameters that are important to ozone science and climate change. Working with our Canadian government department, we are also actively looking at contributions to international missions that could provide key information in relation to the management and stewardship of our vast territory including the north and our extensive coastline.

Mr. Chairman, in addition to domestic efforts Canada strongly supports the promotion of international cooperation as very few nations can afford to fully develop a broad range of systems to meet their needs. We believe that space remains expensive and risky and a pragmatic approach is necessary to share the risks and benefits. Thank you Mr. Chairman.

**The CHAIRMAN.** (*interpretation from Spanish*) Thank you very much Ms. Lan Phan of the Canadian delegation. I would now like to give the floor to the Saudi Arabian delegation.

**Mr. M. TARABZOUNI** (Saudi Arabia) I would like to make it very easy and I will speak in English, Mr. Chairman.

On page 6 in A/AC.105/2009/CRP.6 there is the activities conducted by COPUOS and UNOOSA. There is a big conference that is being held in Saudi Arabia in April 2008 between the United Nations and the Kingdom of Saudi Arabia and the conference is on water management using space technology. The conference included presentation and discussion on integrated application of space technology to address issues such as ground and surface water bodies, desertification, drought and sandstorm. It also viewed

the strengthening of the cooperation between countries which have common problems. Beside all this, this conference is going to be held every two years by the support of the donation from Prince Sultan Ibn Abdulaziz International Prize for Water with \$30,000 every two years and this will be held in every country they are calling for. Thank you very much.

**The CHAIRMAN.** (*interpretation from Spanish*) I would like to thank the representative of Saudi Arabia for your statement. I suggest that we broach item 13, use of space technology in the UN system. It is the delegate of Germany who has now up.

**Mr. J. MARSCHALL VON BIEBERSTEIN** (Germany) Mr. Chairman, the German Aerospace Centre, DLR, and UNESCO have signed a memorandum of understanding within the framework of the open initiative. The open initiative supports the monitoring of sites e.g. to prevent the devastation of world natural and cultural heritage sites occurring to national disasters and global environmental change.

DLR is able to provide free access to remote sensing data from Earth observation satellites on the condition they are used to monitor world heritage sites \_\_\_\_ (?) reserves. Similar cooperation agreements have been established by UNESCO with other space agencies. In the framework of the agreement, DLR offers its access to the data of prior German space missions which is available in DLR's archives. It will also be possible to acquire new images from the remote sensing satellite TerraSAR-X. Research projects for the open initiative can be submitted by governments, monument conservators, nature conservationists, development agencies or researchers.

An example of a current research project, within the framework of the open initiative between UNESCO and DLR, is one with the University of Sydney. Australian researchers are covering the world heritage site of Angkor Wat with the satellite TerraSAR-X in comparing the findings with aerial pictures and radar mappings depicting underground structures. In the landscape surrounding Angkor Wat there are vast drainage networks and other water distribution systems. The satellite pictures will contribute to an improved understanding of the water management system of the Khmer. The data will be integrated into an international geographical information system and provided to the local monument authority.

In the framework of this open initiative UNESCO and DLR have jointly coordinated an exhibition on world heritage sites as seen from space. The exhibition entitled: What a site: space looking out

for world heritage, was inaugurated on 2 April 2009 by the Director-General of UNESCO, Koïchiro Matsuura, and Professor Johann-Dietrich Wörner, Chairman of the Executive Board of DLR. The exhibition set up on the outer perimeter of UNESCO Headquarters consists of 30 beautiful satellite images of world heritage sites as diverse as Machu Picchu to the Vatican City or Hawaii Volcanoes National Park and Mount Kilimanjaro. On this occasion Mr. Matsuura highlighted that it is the concerted effort by all these partners that permits us to release the full potential of space technologies for sustainable development by applying it to new fields such as the preservation of the natural and cultural heritage of humankind.

Therefore DLR presents, within the framework of the UNESCO open initiative, its remote sensing data. DLR invites all interested researchers in this field to apply online at the Internet link, [www.terrasar-x.dlr.de](http://www.terrasar-x.dlr.de) and distributed in the handout or to contact DLR for further information. Thank you Mr. Chairman.

**The CHAIRMAN** (*interpretation from Spanish*) Thank you very much. I would like to thank you, Mr. von Bieberstein. I have taken note of this cooperation work going on between DLR and UNESCO which reflects the efforts made by these two institutions to ensure the preservation of the world cultural heritage. Thank you for having shared this information about the database that is available for this purpose.

We have now come to the end of agenda item 13. Let us take up agenda item 14 which is, use of space-derived geospatial data for sustainable development. I have three speakers on my list under 14, Hungary, Nigeria and Brazil and I would straight away turn to the delegation of Hungary. Mr. Both you have the floor.

**Mr. E. BOTH** (Hungary) Thank you Mr. Chairman. Mr. Chairman, distinguished delegates. In accordance with our multi-year work plan, the Committee this year evaluates the activities that are directly related to the use of space-derived geospatial information for sustainable development and consider ways and means of highlighting the links existing among those activities and of giving them stronger international recognition. Let me take the opportunity to inform the Committee on the relevant activities in Hungary.

In the exploitation of the space research results, the civil sector plays a beneficial role, also in Hungary, coordinated by the Hungarian Association for Geo-

information, HUNAGI, which is a non-profit, interdisciplinary, non-governmental umbrella organization having 101 member institutions and organizations from government, NGOs, academia and private sector. Its major objectives are to encourage and facilitate the availability, share accessibility and usability of geographic information according to the European Spatial Data Infrastructure related legislation programme, INSPIRE, for the benefit of the geo-information community.

To achieve its goals, HUNAGI focuses on partnerships with the major stakeholders and governmental agencies involving end-users via dissemination of best practices, mainly gained in multi-level international cooperation on a European and global level, with EUROGI, Global Spatial Data Association, International Society of Digital Earth and the United Nations Geographic Information working group.

HUNAGI took part in the fourth and fifth plenary meetings of GEO in 2007 and 2008 respectively and assisted in the preparations of the \_\_\_\_ (?) statements. HUNAGI was invited to the national committee for the UNESCO-driven International Year of the Planet Earth and mobilized some of its member institutions from the geo-science community to exhibit their activities at the Hungarian International Year of the Planet Earth conference and exhibition in April 2008.

HUNAGI functions also as the United Nations Special Data Infrastructure, Hungarian Coordination Office. Recently, at the twenty-seventh meeting of the CEOS working group on information systems and services, hosted by CNES in Toulouse in May 2009, the HUNAGI delegate, representing the Global Spatial Data Infrastructure Association, made two contributions. Firstly, he advised on the WGISS best practices and lessons learned interest group to contact the European eSDI-net project coordinator to study the methodology, developed last year under the leadership of EUROGI, in the field of identification and evaluation of best practices for regional and thematic spatial data infrastructures.

Secondly, he underlined the critical role of information for decision-makers and the availability, accessibility, quality, and usability, of spatial data in applications which need quick response time. It was also suggested, based on the practical experiences of UN-SPIDER and of the CEOS working group on information systems and services, members active in the disaster response operational applications that the GSDI spatial data infrastructure cookbook should be

extended, describing the requirement of these challenging disaster mitigation applications. This issue could be also addressed at the tenth anniversary of the UN Geographic Information working group plenary meeting in Bonn, next October. The findings could be drafted and discussed at the third UN-SPIDER workshop, disaster management and space technology, from concept to application which is being jointly organized by OOSA and the German Aerospace Centre in Bonn next October.

Some of the 16 stakeholders of the virtual UN Spatial Data Infrastructure, Hungarian Coordination Office, are active in innovative, integrated and operational use of spatial data infrastructure, \_\_\_\_ (?) measurements and Earth observation data.

In conclusion, all remote sensing applications, including spatial data infrastructure, are very important for our country. A series of initiatives coordinating the special efforts of government, academia and university entities as well as of space application companies could help to reach our goal and enhance our international cooperation in the field. Thank you Mr. Chairman.

**The CHAIRMAN** (*interpretation from Spanish*) Thank you very much distinguished delegate of Hungary. I would now like to give the floor to Nigeria.

**Mr. G. AGBAJE** (Nigeria) Thank you Mr. Chairman. The Nigerian delegation wishes to note and commend the effort of the Office of Outer Space Affairs, OOSA, through its programme of space applications and the working group on education, training and capacity-building of the Committee on Earth Observation Satellites, CEOS, for concentrating on building capacity in developing countries. However, such training can only achieve the desired developmental goals when combined with easy access to space-derived data. Accordingly, each country will need to develop the needed ICT infrastructure to achieve this goal. The science and technology committee for the third session emphasized the importance of providing non-discriminatory access to remote sensing data and to derive information at reasonable costs and in a timely manner and of building capacity for the adoption and the use of remote sensing technology in particular to meet the needs of developing countries. One way of achieving this is through the international collaboration for the development of spatial data infrastructure.

Mr. Chairman, not only that in the industrialized world over 80 per cent of social, economic, environmental management decisions are based on

quality and accurate information on natural resources and other geospatial data. The roots of under-development in many countries emanated from a number of factors. The latter include, poor quality data collation, organization and management practices including lack of adequate infrastructure as \_\_\_\_ (?) human capacity to develop the natural resources and manage the environment in a sustainable manner. The consequences of this include food insecurity, air and water pollution, environmental degradation.

Mr. Chairman, in 2003 the geo-information subcommittee of the United Nations Economic Committee for Africa, the Committee on Development, Information, Science and Technology, called on member States to establish spatial data infrastructures in their respective countries in order to ensure that spatial information is readily available for sustainable development activities. However, due to the overwhelmingness of computer needs, many decision-makers in developing countries could not bring to the front burner the need to commit sufficient resources to the development of the national spatial data infrastructure. This challenge is aggravated by the difficulty in appreciating the benefit of space science and technology especially in concrete terms.

Mr. Chairman, without deliberate effort to establish the national spatial data infrastructure the implementation of UNISPACE III recommendations and achievements of the benchmarks of the Millennium Development Goals will elude most developing countries. We therefore recommend that development partners, especially UN agencies, should make the development of SDI by countries the condition for supporting project implementation or else collaborate with them in the building of national spatial data infrastructure. This will ensure easy access to space-derived data for \_\_\_\_ (?) of our planet Earth. Thank you Mr. Chairman.

**The CHAIRMAN** (*interpretation from Spanish*) Thank you very much representative of Nigeria.

I would now like to recall, ladies and gentlemen, that paragraph 50 of resolution 6190 of the United Nations General Assembly says that the Committee is going to continue examining this matter during its session. Following a pluriannual working programme the Committee will be taking stock and assessing the activities, at UN level, and as for the assessment of sustainable development, space technologies and measures made available and how better use can be made of this within the framework of its activities. The Committee will be preparing a report

containing proposed measures to step up national space data infrastructures.

I will now straight away give the floor to the Secretariat which is going to be presenting to us CRP.3 on international cooperation in promoting the use of space-derived geospatial data for sustainable development. You have the floor.

**Mr. N. HEDMAN** (Secretariat) Thank you very much Mr. Chairman. Yes indeed, the Secretariat is pleased to introduce this document.

I draw your attention then to CRP.3, international cooperation in promoting the use of space-derived geospatial data for sustainable development and I would like to call your attention to page 2. As delegations are aware, this item was proposed by the delegation of Brazil and, under its work plan for 2009, the Committee this year would make an evaluation of the activities undertaken, within the United Nations system, that are directly related to the use of space-derived geospatial information for sustainable development and consideration of ways to highlight the links existing among those activities and the means to give them stronger international recognition. Also to draft a report containing recommendations on ways and means to foster international cooperation with a view to building up national infrastructure to use space-derived geospatial data.

At its fifty-first session, last year, the Committee requested the Secretariat to prepare a summary of the discussions under this item in 2007 and 2008 for consideration at this fifty-second session and to include information on activities undertaken, within the United Nations system, that are directly related to the use of space-derived geospatial information for sustainable development.

The present note by the Secretariat in CRP.3 contains the requested summary of the discussions under chapter 2 of this document. Information on relevant activities undertaken within the United Nations system is provided in chapter 3 of this document and, a couple of general conclusions are presented in chapter 4. In addition, distinguished delegates, the annex to this note by the Secretariat contains, for consideration by the Committee, a proposed draft outline for the report of the Committee to be prepared.

Distinguished delegates, as you will see from this document, in chapter 2 which starts on page 3, summary of discussions in the Committee, this is a

reflection of the discussions that have been held so far under the item considered in 2007 and 2008 and, of course, not during this present session. We have also included, as I already referred to, it starts on page 5 in chapter 3, activities undertaken by the United Nations entities, by the United Nations system as requested, as a broad reference and information for delegations.

Mr. Chairman, there are of course various ways of proceeding with this mandate given by the Committee to draft a report and the delegation of Brazil has requested the Secretariat to distribute, for your attention and consideration, a non-paper prepared by the delegation of Brazil containing proposals for recommendations on ways and means to foster international cooperation with a view to building up national infrastructures to use geospatial data and that is in line with the mandate under the work plan.

Mr. Chairman, the Secretariat is prepared to circulate this non-paper and then, as I note, the delegation of Brazil has inscribed on the list to present this non-paper. So, with your permission, Mr. Chairman, the document can be circulated in the room right now.

**The CHAIRMAN** (*interpretation from Spanish*) I thank the Secretariat for introducing this document. The Brazilian delegation has asked for the floor. It will take the floor and obviously the document is being disseminated, as we speak.

I am now going to give the floor to the delegation of Brazil.

**Mr. J. FILHO** (Brazil) Before we address the more substantive issues of international cooperation in promoting the use of space-derived geospatial data for sustainable development, the Brazilian delegation would like to express its appreciation for the hard work being undertaken by the Secretariat, since the inclusion of this item on the agenda of the Committee in 2006. More specifically we thank them for the submission of CRP.3 about this subject. We would like also to thank the specialists who made presentations on such matters contributing to our discussions.

Mr. Chairman, in 2006 the Brazilian delegation proposed the inclusion of this issue on the agenda of the Committee for one main reason. Brazil is of the view that the creation of national infrastructure for receiving, processing, analysing and using, geospatial data, in all countries or, at least, in the overwhelming majority of them, is a powerful means to universalize the culture of utilization of satellite data. To universalize the culture of utilization of satellite data

needs, to put these fundamental resources within reach of all countries, all societies, actors, in all fields of application, this would mean the creation of a true global market for satellite data which we still do not have.

The Brazilian proposal is fully aligned with the spirit and the letter of the document presented by the COPUOS presidency entitled \_\_\_\_ (?) United Nations space policy, particularly when it states that space activities have changed from being an exclusive preserve of a few technologically advanced countries to a large and growing domain providing critical services and data for all countries in the twenty-first century. In this sense and inspired by the mentioned arguments, Brazil has made efforts to prepare a contribution to the drafting of this recommendation foreseen in the work plan for this agenda item. The respective non-paper is kindly being distributed by the Secretariat now. Allow me to present now these recommendations.

First, States should engage in and continue to support international cooperation initiatives covering the most relevant elements for the creation and operation of national space data infrastructure in all countries. This includes working towards ensuring the global offer and access to space-derived data and associated application software as openly as possible and at the lowest possible cost. Employing efforts in capacity-building, regarding short-term and long-term training, development of associated infrastructure and institutional arrangements.

In addition to the above-mentioned aspects, States should pay particular attention to the creation, at national level, of adequate conditions required for the establishment of national space data infrastructure. In building up national infrastructure to use space-derived geospatial data for sustainable development, States should act in accordance with the declaration on international cooperation in the exploration and use of outer space for the benefit and the interest of all countries, taking into particular account the needs of developing countries. General Assembly resolution 51/122.

Actions to foster international cooperation with a view to build up national infrastructure to use geospatial data requires actions, at both national and international levels, which should be undertaken in accordance with the specification of different States.

At the national level, States should identify and categorize their most relevant national, environmental and economical issues as well as define their geospatial

data needs for supporting decision and policy making processes.

States should make special efforts to create and expand databases with national geospatial information which could be supported by the establishment or employment of networks that integrate national research institutions, academies and private sectors and \_\_\_\_ (?) civil society.

At international level, States should make special efforts to engage in or expand international cooperation initiatives that aim at retrieving, classifying and sharing space data, from remote sensing sources, ground data acquired to facilitate analysis of remotely sensitive data, digital maps from specific studies carried out \_\_\_\_ (?) or other relevant data. This could be achieved through the amplification of the networks mentioned above.

Recommendation 3. States should make special efforts to develop and disseminate simple tools with minimal technical requirement and at the lowest cost possible for the treatment and analysis of geospatial data as a means to create or enhance autonomous national capabilities to generate information for supporting decision and policy making processes.

Mr. Chairman, the Brazilian delegation hopes that this recommendation will serve as a basis for reflection and further contribution by all delegations. The cause at stake here must mobilize all countries or it will hardly be successful. Thank you very much Mr. Chairman.

**The CHAIRMAN** (*interpretation from Spanish*) I thank the delegation of Brazil and I am very grateful for the effort that has gone into this. This proposal is obviously the result of work that you initiated, among others, it is a great contribution to our work. The Brazilian proposal is contained in the non-paper that was just introduced. Now we can analyse it, study it, peruse it, and, this afternoon I hope, we will have a chance to address it at some length. Thank you very much Brazil.

I now call upon the Syrian Arab Republic.

**Mr. O. AMMAR** (Syrian Arab Republic) (*interpretation from Arabic*) Thank you Mr. Chairman. Allow me once again to thank you and to congratulate you on your skills and the smooth manner with which you conduct our work.

In our national institutions we try to address problems that are of concern to us. Our concerns are

often common to the concerns of this Committee as well.

Regarding item 14, we have realized the importance of its title, therefore the remote sensing authority in Syria, which is the competent authority in applying space technologies and remote sensing technologies, has conducted a workshop on remote sensing and insight to observations. We have held it on 29 December 2008 and many researchers have presented lectures. The workshop has been attended by many specialists from Syria and various countries. That workshop covered the following areas.

Spatial data and their applications *in situ*. Governing criteria related to *in situ* data. Regulatory framework to deal with digital data as well as capacity building. This workshop has led to recommendations which have stressed the need to use remote sensing technologies in order to enhance *in situ* data in coordination with all competent authorities, nationally and internationally. We have stressed the need to establish a network of remote sensing data that would be coordinated within various authorities in order to serve sustainable development. We have also established databases according to scientific methodologies used internationally. We have stressed as well the need to establish legal and regulatory frameworks which serve *in situ* data used among the various authorities and research institutions, in addition to human resources capacity building in this regard.

We hope that you will find the appropriate mechanism which would support our orientations in our countries. Our countries that are indeed interested in this item 14. Thank you.

**The CHAIRMAN** (*interpretation from Spanish*) I thank the delegation of Syria for the kind words addressed to the Chair and also for the important contribution to our work.

I have no further speakers on my list under this agenda item. We will come back to it this afternoon.

Now we are taking up item 10, space and society. On this agenda item I have a number of delegations on my list, Hungary, United States, Germany, Ukraine and two observers, EURISY and UNIDIR. Also Syria and Brazil have asked to be given the floor under this item, space and society.

We will start with the delegation of Hungary.

**Mr. E. BOTH** (Hungary) Thank you very much Mr. Chairman. Mr. Chairman, distinguished delegates,

the General Assembly, in its resolution 62/200, declared 2009 the International Year of Astronomy to highlight the importance of the use of space science and technology. In view of the importance of space and education, Hungary more than welcomes this decision and to try to do our best to take the opportunity to popularize astronomy and also space sciences. Thereby I would like to inform very briefly the Committee on the most important events of the International Year of Astronomy in Hungary.

Hungary is among the more than 140 countries that joined the international initiative and is among the more than 100 \_\_\_\_ (?) that operate a special national website. A national organizing committee was set up coordinating the activities of the different governmental, university, academia partners as well as civil initiatives. The prime target of the events is the use. The astronomical observatory of the Academy of Sciences released an announcement of opportunity for young people entitled: Up to the starry sky. The best applicants can make their own photos of selective celestial objects with the country's greatest Schmidt telescope.

\_\_\_\_ (?) observatory and the Szeged University organized a contest for 10-14 and 14-18 years old schoolchildren. About 100 teams participated in the two categories. The Deputy Minister for Research and Development announced a drawing contest for even younger schoolchildren. About 200 drawings, paintings and other entries arrived. The magazine, World of Nature, prepares a special volume dedicated to astronomy including space astronomy with the financial support of the Hungarian Space Office. It will be published later this year in 4,000 copies. The Hungarian Astronomical Association also published a special volume on the occasion of the International Year of Astronomy. Moreover, they published in the Hungarian language, Galileo's book \_\_\_\_ (?). After nearly 400 years elapsed, this was the first time that this \_\_\_\_ (?) publication appeared in the Hungarian language.

The Association's own TV studio broadcasted some international events of the International Year of Astronomy. In early April they also joined the campaign, 100 Hours Astronomy, having public demonstrations in several locations. The Ministry of Environment and Water organized an art exhibition, Landscapes under Starry Sky. The Archdiocese Library of Culture had an exhibition of historical astronomy books. The Hungarian Astronautical Society organizes, for this autumn, a full day symposium, Space Astronomy in Hungary, where all groups can introduce their results who are involved in space astronomy-

related research mainly in ESA and NASA cooperation. On several occasions, some physics or space-related annual events had, or have, this year, a special theme in connection with astronomy. This was the case with the thirtieth Physicists Day of the Nuclear Research Institute of the Academy of Sciences as well as with the Annual Space Day and Youth Forum of the Hungarian Space Office.

The Hungarian Post joined the international initiative, similar to other Posts all over the world, issued a special stamp on the occasion of the International Year of Astronomy commemorating not only Galileo but also the Galileo space probe, Jupiter, and its Galileo satellites. Beyond these major events, dozens of public events were held all over the country dedicated to the International Year of Astronomy.

In conclusion, we are convinced that the International Year of Astronomy proved to be a useful initiative which provided us to review our results in the field, to activate hundreds of volunteers to actively participate at the events, touching thousands of people. We sincerely hope that this awakened interest can have a beneficial influence in respect of sciences, including space-related ones. Thank you Mr. Chairman.

**The CHAIRMAN** (*interpretation from Spanish*) I would like to thank the distinguished delegate of Hungary. I agree with you in the assessment of the importance of the International Year of Astronomy. Thank you very much.

I now call upon the distinguished delegate of the United States, Mr. Higgins.

**Mr. J. HIGGINS** (United States of America) Thank you Mr. Chairman. The US delegation is pleased to address the special theme of space and education here at COPUOS. We acknowledge the important role of space education for inspiring students to pursue careers in science, technology, engineering and mathematics. To increase the number of professionals entering those fields, to strengthen national capabilities in the fields of science and industry and to enhance educational opportunities using distance learning technology, such as tele-education and e-learning.

The United States Civil Space Programme continues to emphasize the importance of space to education and education to space. Let me highlight several NASA programmes to illustrate the types of projects we have underway.

First, the International Space Station continues to play an important role in education and reaching out to international educational communities. For example, the amateur radio on the International Space Station programme inspires students worldwide to pursue careers in science, technology, engineering and math through amateur radio contacts with the on-orbit crew of the ISS. The programme is maintained by a dedicated group of international amateur radio operators who have helped over 107 million people from around the world interact with astronauts and cosmonauts.

The International Space Station is also playing an important role as a research platform for students and educators of all ages. Under the US/ISS National Laboratory concept, NASA continues to pursue a strategy through which available ISS resources can be used as a national education centre accessible to teachers, students in kindergarten through post-doctoral studies and university college faculty. On 15 March of this year, educator astronauts, Joe Acaba and Ricky Arnold, were launched as part of the STS 119 crew to the International Space Station. Educational activities on spacesuit design and space walks were developed for this mission. NASA recently launched a website that will highlight the many NASA-sponsored education flight projects. More than one million students have already participated in engineering and other design challenges based upon the work of NASA's educator astronauts.

The NASA Explorer Schools Programme is another key initiative designed to strengthen science, technology, engineering and mathematics education in the United States. This Programme covers school teams in diverse and under-served populations to participate in a three-year partnership with NASA. Partnerships are tailored around each school's individual needs and promote on-going professional development for educators and administrators through a variety of resources. There are now over 200 schools associated with the NASA Explorer Schools Programme.

The international counterpart to the NASA Explorer Schools, the Delta Researcher Schools in the Netherlands, has also been a successful platform for enhancing international educational collaboration. NASA is proud of the cultural and educational exchange, made possible with the European Space Agency and the Netherlands Ministry of Education, Culture and Science, through the Delta Researcher Schools programme in the NASA Explorer Schools.

Delta Researcher School educators and students have participated in unique learning opportunities including professional development at NASA centres and live in-flight communications with astronauts and cosmonauts on board the International Space Station. This summer NASA looks forward to hosting four Dutch educators at NASA educational workshops in Ohio and Texas.

NASA utilizes all of its scientific missions to enhance the nation's education efforts and to engage the public. Through each of its mission directorates, NASA develops resources for elementary, secondary, higher education and informal education partners. For example, in conjunction with last month's mission to the Hubble space telescope, NASA released an extensive array of curricula support materials, images, online training curricula, design challenges, and interactive web activities, to inspire, engage and educate students. NASA is also leading a number of projects designed to educate post-secondary students in space-related careers and prepare them for future employment. During this summer, NASA Academy students from across the United States, as well as from Japan, Italy, Spain and France, will work directly with NASA scientists on cutting edge research. The NASA Academy's unique combination of scientific, career and internship training, makes it a valuable platform for cultivating the next generation of international leaders in space science and exploration.

NASA is also, once again, sponsoring US graduate student researchers to make presentations at the annual International Astronautical Congress, or the IAC congress, which will be held this October in Daejeon, South Korea. During the 2009 IAC Congress, NASA will co-host a series of educational programmes at the International Space Education Board's International Student Zone. Students from around the globe who attend the IAC or visit the International Space Education Board's International Student Zone, will have a unique opportunity to share and learn from each other. Exposing our students to the activities of international scientific conferences and allowing them to be active in presenting their own space-related research will open new doors for these prospective space professionals. Our next generation of researchers and engineers will increasingly need global perspectives and experiences to solve the challenges we face as space explorers.

One challenge to using the unique environment of space to inspire students to study science and technology in all nations is, of course, the availability of resources. NASA continues to welcome opportunities for international collaboration where

resources can be leveraged and where collaboration supports NASA's education strategic goals and objectives.

Mr. Chairman, I presented a number of examples of ways in which my country is working hard to inspire the next generation of explorers and to strengthen our national educational posture by using content, materials and applications unique to space activities. We look forward to sharing ideas and experiences with the Committee and to learning more about the successes achieved by other member States. Thank you Mr. Chairman.

**The CHAIRMAN** (*interpretation from Spanish*) Thank you very much indeed the delegation of the United States. Thank you for the proposal that you have made to share this information in such a way as to step up the capacities of generations to come. You have also referred to the importance of fund collection for developing countries.

The next speaker on my list is the representative of Germany. Mr. Marschall von Bieberstein.

**Mr. J. MARSCHALL VON BIEBERSTEIN** (Germany) Thank you. Mr. Chairman, the German delegation would like to draw your attention to some of the activities which have taken place in Germany this year in the field of education related to space flight, such as Girls Day which took place in April of this year. On this day, schoolgirls were given the opportunity to learn about different professions in the field of natural sciences and technical areas nationwide. The main aim of this day was to provide girls at an early age with a chance to come into contact with future career options while, in the meantime, reinforcing that the strength of girls should be given more focus by the public and private sectors.

For many years, the German Aerospace Centre, DLR, has been an active partner of Girls Day. This day provides, in addition to the DLR school labs, another opportunity to fascinate young people with the world of research and technology giving them the opportunity to experiment for themselves with questions of space flight. On 22 and 23 June of this year DLR, along with the University of Cologne, will extend an invitation to the seventh Cologne Children's University, the goal being to inspire children and young people through research and science. As part of the programme, children will be able to experience exciting insights into the field of applied science.

Furthermore, the exhibition Out of this World: Wonders of the Solar System, opened its doors in April

to visitors at the Oberhausen gasometer. It puts our solar system on display at the huge process of growth and decline and takes visitors on a journey into the cosmos. Thanks to special offers for children and families, a trip through the universe is possible in a playful way. Spectacular replications of a planet system, fascinating pictures of faraway galaxies, historical instruments as well as modern technology are part of this varied exhibition.

During the International Year of Astronomy there is also the first extensive art exhibition about the Moon until August 2009 in Cologne. The Wallraf-Richartz Museum presents, in a fascinating way, how the Moon during the centuries has shaped our perception of the world and universe as reflected on canvas.

Mr. Chairman, I would like to announce that, as mentioned in our statement during the general exchange of views, we will make a presentation under this agenda item entitled: From Quarks to the Universe - the Big Bang in the Lab, tomorrow. Thank you Mr. Chairman.

**The CHAIRMAN** (*interpretation from Spanish*) Thank you very much representative of Germany for that statement. I would now like to give the floor to Ukraine.

**Ms. A. KARNAUKHOVA** (Ukraine) (*interpretation from Russian*) Thank you very much Mr. Chairman. Under this agenda item, my delegation would like to briefly share some information with you about the activities of the National Centre for Aerospace Education for Ukrainian youth which is engaged in all sorts of activities in training in outer space technologies.

We are seeking to conduct scientific training in R&D to achieve goals in our State's special scientific and technical outer space programme. We are also seeking to awaken the interest of young people in our country in aviation, in cosmonautics, in exploration, we seek to foster their intellectual and technical training and create the proper conditions for such training. We are seeking to develop training systems and conduct training and re-training with courses for aviation and cosmonautic specialties. Over 2008, the Centre organized and conducted scientific and technical tracking of implementation of promising youth projects. We also conducted lectures and practical training in technologies for non-specialized students in rocket modelling labs. We also engaged in activities to celebrate the tenth Jubilee of the International Scientific and Practical Youth Conference on \_\_\_\_ (?)

and outer space, as well as the fifth stage project of youth competitions, system-wide in satellite monitoring. We also engaged in all sorts of scientific design development work in the outer space rocket sector and we also engaged junior high and high school courses in seeking to involve young people in further work in these areas.

In the Centre's work, we also developed the following in our pedagogical process. We organized a training course in Earth remote sensing; we engaged in courses using sensor data produced directly from sensors located in outer space. We also engaged in the development of pedagogical administrative support in this regard and training courses for specialists of the Centre commissioned by our industry. We also developed training courses for training specialists on information technology related to Earth remote sensing courses.

What activities took place over the past year? From 8-10 April, at the National Centre facility, we staged a course and a conference in applied science conference called, Man and Outer Space. In the course of this conference, we considered new and promising scientific proposals presented by young people in our country. From 21 and 22 April, on the same centre facility, we had a seventh Ukrainian student conference, called the Star Route, and this in order to inspire our young people in space technology, areas of research in astronomy, physics, natural events and outer space environmental protection. One hundred and thirty members were involved, 197 students presented their projects in rocketry, etc. and we are going to be continuing to ensure this sort of activity in the future in order to further our involvement in R&D and the application of space technologies. Thank you.

**The CHAIRMAN** (*interpretation from Spanish*) Thank you very much to the distinguished representative of Ukraine. I would like to give the representative of the Syrian Arab Republic the floor now.

**Mr. O. AMMAR** (Syrian Arab Republic) (*interpretation from Arabic*) Thank you ever so much Mr. Chairman. The body in Syria which is encharged with Earth remote sensing, apart from the applied research work and studies on Earth sensing, seeks to disseminate the culture of remote sensing throughout our society, it particularly focuses its efforts on our educational institutions, our schools.

The specialists in our national remote sensing institutions and centres travel around our country to promote this subject and this awareness and, over and

above the supervision of educational work, they also have constant contacts with university centres. They encourage the educational staff in universities to go on with the studies to obtain post-doctoral degrees in the field of outer space studies and remote sensing.

Last year the Ministry of Education, which is in charge of the supervision of all this work, improved and amended the educational curricula in this regard incorporating outer space technologies and relevant information in the cluster of work that these students have to deal with.

We also organize visits and tours of national centres so that our students are able to get a hands-on feeling for the development of R&D in this field. There are all sorts of visits organized, allowing students to see exactly how this sort of project actually evolves in the field and in practice. There are many workshops organized and this will be continued in the future, this will be taking place in Damascus, Aleppo and Latakia. These workshops are going to be especially focusing on the final years of high school training and first years of university training.

I would like to take this opportunity to thank Ms. Yolande of UNESCO for the support she has extended to us in cooperating with our centre. Thank you.

**The CHAIRMAN** (*interpretation from Spanish*) Thank you very much representative of the Syrian Arab Republic.

I would now like to give the floor straight away to the observer of EURISY, Mr. Johannes Ortner.

**Mr. J. ORTNER** (EURISY) Thank you Mr. Chairman. First let me say that I am impressed by your efficiency in guiding this Committee. I also admire the work carried out by the Office of Outer Space Affairs and its Director, Mazlan Othman, producing a maximum output with minimum funds.

Mr. Chairman, distinguished delegates, as we have reported on the occasion of the last two meetings of this Committee in 2007 and 2008, Eurisy has initiated, two years ago, a new approach to diffusing the benefits of space to society with its User Programme. The originality of this programme is that Eurisy positions itself at the heart of the user community's agenda and helps them reach to space solutions rather than the opposite. Eurisy is building an expertise and legitimacy on user's issues, language and functioning before demonstrating to them that it can provide solutions. On this basis, users call on Eurisy

for information, consultancy and capacity-building. Eurisy responds to these requests integrating the space dimension when and where relevant.

During its second year of existence, the programme has grown at a very fast pace. The local and regional authority initiative has enlarged its success with a growing number of regions requesting Eurisy support through the so-called embedded events, case studies and consultancy. European institutions such as the European Commission and its agencies, governments and industry, have recognized Eurisy as a legitimate source of information as well as a source of support for learning more about satellite information and services. Eurisy's partnership with user organizations is growing even more so since Eurisy has launched its second initiative of the User Programme to small and medium enterprises.

Eurisy has demonstrated its ability to provide an analysis and bottom-up feedback to decision makers on the mechanisms for implementation of satellite information and services by users, in particular through the publication of position papers and conferences dedicated to European parliamentarians and other stakeholders of the space community. Overall, this programme has already made a difference in the way user communities in Europe see space activities where they provide benefits to society.

Over the last year, Eurisy has organized, within its User Programme, two thematic workshops for users on, Regional Risk Management – Integrated Use of Satellite Information and Services and the second, Innovation at the Service of Regional Growth: the Competitive Advantages of Satellite Information and Services. During these Eurisy events, users from public authorities and small and medium enterprises learn on good practice on the use of satellite applications through presentations by their peers. Value-added companies and experts from the space community learn on user's agenda and challenges and meet new potential users.

In addition, Eurisy organized a stakeholder conference in Brussels on Regional Policy: Benefits from Satellite Information and Services, for decision-makers from the European Commission, governments, European parliamentarians, exposing findings and analysis on the challenges for users when implementing satellite services.

Eurisy also has recognized close to 20 so-called embedded events which are organized within users conferences and workshops and where Eurisy is invited to organize information sessions and demonstrations on

the use of space applications. These events are particularly efficient for raising awareness of users as they bring the information to the user's society responding directly to their issues and under a format which is familiar to them. For all these activities, Eurisy has developed, and will continue to do so also in future, a database of good practice which provides operational examples of the benefits which society gets from using satellite services. These good practices, which are presented by the user to his peers, are the most efficient tools to demonstrate to users the benefits of satellite applications as users will trust their peers more than anybody else.

Finally, Eurisy has undertaken several case studies within which it provides consultancy to user or groups of users for implementation of satellite services within operational projects. In 2009 and early 2010, the same level of activity will be maintained with Eurisy user workshops on energy efficiency being organized on 22 and 23 June in The Hague in the Netherlands and another one, on climate change, on 12 and 13 November in Kyiv in the Ukraine, and many more embedded events all around Europe.

Overall the Eurisy User Programme has become its main activity. Its original approach and its results are now widely recognized, thus there exists now a difference in the way the user communities perceive the benefits of space applications.

Mr. Chairman, in parallel, Eurisy has continued its international cooperation and its education programme through the organization of the Budapest conference on the Models of Governance of Space Activities in January 2009, and the Prague workshop on Securing Human Resources for the Future Space Sector, which was held in March 2009.

The Budapest conference on Models Of Governance of Space Activities was very successful and raised a high level of interest. Members of the European Parliament, ESA Director-General, high-ranking executives from most European space agencies and many distinguished representatives from industry and institutions related to space met to reflect on how to best structure, national and European space governance. The conference was co-organized by Eurisy and ESPI, with the Hungarian Space Office as the local host, and enjoyed the support of ESA and the space agencies of France, Germany and Italy.

The Prague workshop on Securing Human Resources for the Future Space Sector, co-organized with the Czech Space Office, was hosted by the Czech presidency of the European Union and sponsored by

ESA, the Norwegian Space Centre and HE Space Operations. Professionals from space agencies and national governments, industry and scientific institutions from 14 countries attended this workshop. They put forward a qualitative assessment of the human resources needs of the space sectors in the mid-term future. On the basis of an evaluation of what the space sector might look like in the mid-term and of the impact on the human resources situation, the participants identified a number of short, medium and long-term actions that the space community and education community should undertake to satisfy these needs.

At the same time, and as a permanent effort, Eurisy ensures that it offers to students this opportunity to attend every event it organizes with financial support. As demonstrated by all the results reached over the last 12 months within its different programmes, Eurisy is resolutely addressing the necessity to consolidate the benefits of space to society by fostering interdisciplinary cooperation and is dedicated to continue these activities in the years to come. Mr. Chairman, distinguished delegates, thank you for your attention.

**The CHAIRMAN** (*interpretation from Spanish*) Thank you. On behalf of the Committee, I would like to thank Johannes for having presented all the activities of Eurisy to us here. Your organization and you personally have significantly contributed to the space programme on behalf of Austria.

Now we are going to start our technical presentations. I would like to turn to the representative of Poland who is going to be talking about the activities of Polish students.

**Mr. M. URBANOWICZ** (Poland)  
[Presentation: Polish students' space activities]

**The CHAIRMAN** (*interpretation from Spanish*) On behalf of the entire Committee, I would like to congratulate you and thank you for this presentation. I commend you and your students for the efforts, the in-depth work with young people. Congratulations and I believe it was truly relevant that you mentioned the cooperation and the assistance that you received because otherwise it is almost impossible to reach these goals when you work with students. You mentioned the support of the European Space Agency, the Polish Academy of Sciences and the Space Generation Advisory Council as well as representatives of the industry and it is excellent that you have been able to focus the attention of all of those actors. You have the floor.

**Mr. E. BOTH** (Hungary) Thank you very much Mr. Chairman. I just would like to warmly congratulate the Polish students for this excellent presentation and those of \_\_\_\_ (?) professor for their interesting results in space technology. My delegation takes this opportunity to express its high appreciation towards the European Space Agency since it extends its education programmes to non-member States. I sincerely hope that ESA will sustain this generous practice thus offering the opportunity for the Polish, as well as the Hungarian engineering students, to participate also in the European students Moon orbital mission. Thank you very much.

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

**Mr. J. OJEDA BUENO** (Colombia) Thank you Mr. Chairman, you are reading my mind.

[The delegate is speaking Polish, which is not an official language, so it cannot be interpreted.]

**The CHAIRMAN** (*interpretation from Spanish*) Now tell us what you said because we did not understand.

**Mr. J. OJEDA BUENO** (Colombia) (*interpretation from Spanish*) I just wanted to draw the attention of those present. I believe that the Polish presentation was extremely interesting. It is a good example not only for European States but also for Latin America. Thank you very much.

**The CHAIRMAN** (*interpretation from Spanish*) Thank you. Now we are moving on to the next presentation. It will be made by Mr. José Miguel Rodríguez Espinoza of Spain. He will talk about Astronomy, the Great Canary Telescope and Dark Skies.

**Mr. J. RODRÍGUEZ ESPINOZA** (Spain)  
[Presentation: Astronomy, The Great Canary Telescope and Dark Skies]

**The CHAIRMAN** (*interpretation from Spanish*) I would like to thank Mr. Rodríguez Espinoza of the Astrophysical Institute of the Canary Islands, La Laguna, Tenerife, Spain. On behalf of the Committee, please convey our congratulations to the Spanish authorities on having successfully installed this absolutely marvellous instrument which operates, in a way, simple, accessible to the public. One does not need to be an astronomer to understand the significance of this work. Thank you very much again.

Now, I have the pleasure of calling upon Dr. Iván Darío Gómez of Colombia who is the Director of the Colombian Space Commission.

**Mr. I. GÓMEZ GUZMÁN** (Colombia)  
[Presentation: Space technology to support sustainable development of Colombia]

**The CHAIRMAN** (*interpretation from Spanish*) I have the responsibility to express our gratitude and convey our congratulations and our admiration for the work accomplished by the Colombian Space Commission, particularly to its Director who presented it. It is a young commission, it has only existed for about two years but it has launched these extremely impressive projects and it is also involved in very intensive and useful international cooperation as we are aware from the Space Conference of the Americas and the follow-up work of that. Congratulations on behalf of all of us.

The last presentation this morning will be made by Mr. Scott Pace of the United States. He is going to report on the Institute of Space Policy. You have the floor.

**Mr. S. PACE** (United States of America)  
[Presentation: Report on the Activities of the Space Policy Institute]

**The CHAIRMAN** (*interpretation from Spanish*) On behalf of the Committee, I would like to thank Dr. Scott Pace of the Elliott School of International Affairs, The George Washington University, Washington D.C. The membership of our Committee certainly forces us to incorporate the views and the angle of approach of the university sector and this certainly enriches our debate. This Committee is a forum for thinking about the entire range of problems dealt with and the various issues on our agenda are also of interest to you for your work, so we would encourage you to continue participating in the meetings of our Committee.

We have only three minutes left so I would like to adjourn but, before I adjourn, I would like to give you an idea of the programme for our work this afternoon. We will be convening at 1500. We will be continuing and concluding agenda item 12, space and climate change. Then 13, use of space technology in the United Nations system. Continuing with 14, international cooperation on the use of space-derived geospatial data for sustainable development. Then continuing agenda item 10, space and society and 11, space and water. Time permitting, we will begin our consideration of 15, other matters.

We will also be hearing four technical presentations this afternoon. Started off by the representative of Italy, speaking on Cosmo-SkyMed: potentialities for monitoring and management of natural environment. The United States representative will be giving us a statement on the update on COSPAS-SARSAT programme activities. Turkey will be speaking on uses of outer space for scientific aims in Turkey. The final technical presentation will be by Saudi Arabia on the Abdulaziz University contributions to the promotion of peaceful uses of space technology.

Would there be any questions or comments on this proposed programme of work?

I see none.

I would also like to share with you the invitation, which has been conveyed to us, to a reception this evening. This will be hosted by the USA and the Space Foundation at the VIC Restaurant at 1800, 6 p.m. this evening.

I would like to give the floor to Austria.

**Ms. C. REINPRECHT** (Austria) Thank you very much Mr. Chairman. I would like to make an announcement on behalf of the Head of the Austrian delegation, Ambassador Boeck, in relation to tomorrow's reception at the Heurigen. We have distributed invitations to delegations. We would kindly, but urgently, ask those delegates that want to come and participate in the reception tomorrow to come forward to the Austrian delegation and express your intention to come. Unfortunately, due to administrative reasons, we will have a hard time accepting those delegates who have not registered with us, so please, if I can kindly ask you to come forward and tell us your interest in participating. Regarding practical issues, we will distribute the itinerary with maps as regards for you to find the way to the Heurigen tomorrow so there should \_\_\_\_\_(?) actually finding the way to the Heurigen. Thank you very much.

**The CHAIRMAN** (*interpretation from Spanish*) Thank you very much. I would now like to break for lunch. We will be resuming at 3 p.m. Thank you.

*The meeting closed at 1.01 p.m.*