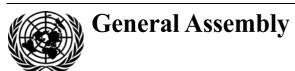
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Committee on the Peaceful Uses of Outer Space Scientific and Technical Subcommittee Fifty-second session Vienna, 2-13 February 2015

Draft report

I. Introduction

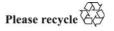
- 1. The Scientific and Technical Subcommittee of the Committee on the Peaceful Uses of Outer Space held its fifty-second session at the United Nations Office at Vienna from 2 to 13 February 2015, under the chairmanship of Előd Both (Hungary).
- 2. The Subcommittee held [...] meetings.

A. Attendance

- 3. Representatives of the following [...] States members of the Committee attended the session: Algeria, Argentina, Armenia, Austria, Belarus, Belgium, Bolivia (Plurinational State of), Brazil, Bulgaria, Burkina Faso, Canada, Chile, China, Colombia, Costa Rica, Cuba, Czech Republic, Ecuador, Egypt, France, Germany, Greece, Hungary, India, Indonesia, Iran (Islamic Republic of), Iraq, Italy, Japan, Jordan, Kenya, Lebanon, Luxembourg, Malaysia, Mexico, Netherlands, Nicaragua, Nigeria, Pakistan, Peru, Philippines, Poland, Portugal, Republic of Korea, Romania, Russian Federation, Saudi Arabia, Slovakia, South Africa, Spain, Sri Lanka, Sweden, Switzerland, Tunisia, Turkey, Ukraine, United Kingdom of Great Britain and Northern Ireland, United States of America, Venezuela (Bolivarian Republic of) and Viet Nam.
- 4. At its 815th meeting, on 2 February, the Subcommittee decided to invite, at their request, observers for the Dominican Republic, El Salvador, Israel, Oman, Panama and the United Arab Emirates to attend the session and to address it, as appropriate, on the understanding that it would be without prejudice to further requests of that nature and that doing so would not involve any decision of the Committee concerning status.

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- 5. At that same meeting, the Subcommittee decided to invite, at its request, the observer for the European Union to attend the session and to address it, as appropriate, on the understanding that it would be without prejudice to further requests of that nature and that doing so would not involve any decision of the Committee concerning status.
- 6. At its 817th meeting, on 3 February, the Subcommittee decided to invite, at its request, the observer for the Sovereign Military Order of Malta to attend the session and to address it, as appropriate, on the understanding that it would be without prejudice to further requests of that nature and that doing so would not involve any decision of the Committee concerning status.
- 7. Observers for the Office for Disarmament Affairs of the Secretariat, the International Civil Aviation Organization (ICAO), the International Telecommunication Union (ITU) and the World Meteorological Organization (WMO) attended the session.
- 8. The session was attended by observers for the following intergovernmental organizations with permanent observer status with the Committee: Asia-Pacific Space Cooperation Organization (APSCO), European Organisation for Astronomical Research in the Southern Hemisphere (ESO), European Space Agency (ESA), European Telecommunications Satellite Organization (EUTELSAT-IGO), Inter-Islamic Network on Space Sciences and Technology (ISNET) and International Mobile Satellite Organization (IMSO).
- 9. The session was also attended by observers for the following non-governmental organizations having permanent observer status with the Committee: African Association of Remote Sensing of the Environment (AARSE), Committee on Space Research (COSPAR), EURISY, European Space Policy Institute (ESPI), International Academy of Astronautics (IAA), International Association for the Advancement of Space Safety (IAASS), International Astronautical Federation (IAF), International Astronomical Union (IAU), International Society for Photogrammetry and Remote Sensing (ISPRS), International Space University (ISU), Prince Sultan bin Abdulaziz International Prize for Water (PSIPW), Scientific Committee on Solar-Terrestrial Physics (SCOSTEP), Secure World Foundation (SWF), Space Generation Advisory Council (SGAC) and World Space Week Association (WSWA).
- 10. At its 815th meeting, on 2 February, the Subcommittee decided to invite, at its request, the observer for the European Science Foundation to attend the session and to address it, as appropriate, on the understanding that it would be without prejudice to further requests of that nature and that doing so would not involve any decision of the Committee concerning status.
- 11. The Subcommittee took note of the applications of El Salvador and Qatar for membership in the Committee (A/AC.105/C.1/2015/CRP.14 and A/AC.105/C.1/2015/CRP.4, respectively).
- 12. A list of the representatives of States, United Nations entities and other international organizations attending the session is contained in A/AC.105/C.1/2015/INF [...].

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B. Adoption of the agenda

- 13. At its 815th meeting, on 2 February, the Subcommittee adopted the following agenda:
 - 1. Adoption of the agenda.
 - 2. Statement by the Chair.
 - 3. General exchange of views and introduction of reports submitted on national activities.
 - 4. United Nations Programme on Space Applications.
 - 5. Space technology for socioeconomic development in the context of the United Nations Conference on Sustainable Development and the post-2015 development agenda.
 - 6. Matters relating to remote sensing of the Earth by satellite, including applications for developing countries and monitoring of the Earth's environment.
 - 7. Space debris.
 - 8. Space-system-based disaster management support.
 - 9. Recent developments in global navigation satellite systems.
 - 10. Space weather.
 - 11. Near-Earth objects.
 - 12. Use of nuclear power sources in outer space.
 - 13. Long-term sustainability of outer space activities.
 - 14. Examination of the physical nature and technical attributes of the geostationary orbit and its utilization and applications, including in the field of space communications, as well as other questions relating to developments in space communications, taking particular account of the needs and interests of developing countries, without prejudice to the role of the International Telecommunication Union.
 - 15. Draft provisional agenda for the fifty-third session of the Scientific and Technical Subcommittee.
 - 16. Report to the Committee on the Peaceful Uses of Outer Space.

C. General statements

14. Statements were made by representatives of the following member States during the general exchange of views: Algeria, Argentina, Austria, Brazil, Burkina Faso, Canada, Chile, China, Cuba, Czech Republic, France, Germany, Hungary, Italy, India, Indonesia, Iran (Islamic Republic of), Japan, Luxembourg, Malaysia, Mexico, Nigeria, Pakistan, Poland, Republic of Korea, Romania, Russian Federation, South Africa, Switzerland, Ukraine, United States, Venezuela (Bolivarian Republic of) and Viet Nam. A statement was made by the observer for

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Panama on behalf of the Group of Latin American and Caribbean States. A statement was also made by the observer for El Salvador. General statements were also made by the observers for APSCO, ESA, IAA, IAF, ISNET, SGAC and SWF.

- 15. The Subcommittee heard the following scientific and technical presentations:
- (a) "Recent Indian space missions: update as of February 2015" and "India's Mars Orbiter Mission in Mars orbit", by the representatives of India;
- (b) "The new progress of the lunar project in China", by the representative of China;
- (c) "Biological investigations onboard the Bion-M No. 1 and Foton-M No. 4 spacecraft" and "Search for dark matter particles in space: international PAMELA and GAMMA-400 experiments", by the representatives of the Russian Federation;
- (d) "Asia-Pacific Regional Space Agency Forum in 2014 (APRSAF-21)", by the representative of Japan;
- (e) "Visual infrared spectrometers: the Italian search for the origin of the solar system", by the representative of Italy;
- (f) "Rosetta-Rosina: a glimpse of a very ancient world", by the representative of Switzerland;
- (g) "Possible uses of nanosatellites for various mission applications", by the representative of Hungary;
 - (h) "ESA human spaceflight today: the ISS", by the observer for ESA;
 - (i) "World Space Week 2015", by the observer for WSWA;
 - (j) "ICAO/OOSA Aerospace Symposium", by the observer for ICAO;
- (k) "The Space Generation Congress 2014: perspectives from university students and young professionals in the space sector", by the observer for SGAC.
- 16. The Subcommittee welcomed Luxembourg as a new member of the Committee on the Peaceful Uses of Outer Space.
- 17. At the 815th meeting, the Chair of the Subcommittee made a statement outlining the work of the Subcommittee at its current session. He brought to the attention of the Subcommittee several provisions of General Assembly resolution 69/85 pertaining to the current work of the Subcommittee. The Chair in his statement emphasized that in building upon the contribution of the Committee on the Peaceful Uses of Outer Space to the United Nations Conference on Sustainable Development (A/AC.105/993), the establishment and strengthening of sustainable and standards-driven spatial data infrastructures merited recognition as a means of implementing development goals and objectives within the context of the post-2015 development agenda process.
- 18. Also at the 815th meeting, the Director of the Office for Outer Space Affairs of the Secretariat made a statement in which she reviewed the work carried out by the Office during the previous year and presented a detailed description of planned activities for the coming year, including outreach activities and cooperation and coordination with United Nations entities and international intergovernmental and non-governmental organizations. She also highlighted the current financial status of

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the Office and stressed the importance of the availability of adequate financial and human resources for the successful implementation of the programme of work of the Office. In that regard, it was essential that the Office be provided with the level of resources necessary for the fulfilment of the full scope of its mandate. She explained that, as the global community was shaping new sustainable development goals and formulating the global development agenda in the post-2015 context, it was important to mobilize support and commitment at the global level to increase the role of space-based technology and information as an enabler for reaching the goals and objectives of the post-2015 development agenda.

- 19. The Subcommittee noted the important anniversaries in 2015, such as the fiftieth anniversary of the first spacewalk performed by a human, cosmonaut Alexey A. Leonov of the Russian Federation; the fortieth anniversary of the Apollo-Soyuz Test Project; the fifteenth anniversary of continuous human habitation of the International Space Station; and the twenty-fifth year in space of the Hubble Space Telescope.
- 20. The view was expressed that the continuous enlargement of the Committee in the past few years demonstrated the confidence that the international community attached to the multilateral system.
- 21. Some delegations reaffirmed the commitment of their countries to the peaceful use and exploration of outer space and emphasized the following principles: equal and non-discriminatory access to outer space and equal conditions for all States, irrespective of their level of scientific, technical and economic development; non-appropriation of outer space, including the Moon and other celestial bodies, by claim of sovereignty, use, occupation or any other means; the non-militarization of outer space, the non-placement of weapons in outer space, and its strict use for the improvement of living conditions and peace on the planet; and regional cooperation to promote the development of space activities.
- 22. Some delegations expressed the view that, given the impact of space activities on human life and the environment, there should be greater coordination and interaction between the Scientific and Technical Subcommittee and the Legal Subcommittee in order to promote the establishment of binding international norms addressing issues such as space debris and the use of nuclear power sources in outer space, which were critical issues in the use and exploration of outer space.
- 23. Some delegations expressed the view that developing countries should benefit from space technologies, in particular to support their social and economic development; that it was necessary to promote cooperation to facilitate data exchange and the transfer of technology among States; and that training of scientists in developing countries was crucial for the free flow of scientific information and data exchange, increased capacity-building and the sharing of knowledge.
- 24. Some delegations expressed the view that any initiative related to the use of outer space should be addressed by the Committee and that the discussion within multilateral organizations with specific mandates was an essential condition for the development of binding legal instruments that contributed to the improvement of space law and that would allow the equal participation of all States. Those delegations were of the view that in relation to outer space, issues of disarmament, international cooperation and space debris could not be subject to non-binding agreements negotiated outside the framework of the United Nations.

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- 25. The view was expressed that the Subcommittee provided a unique platform at the global level for international cooperation in space research and long-term space utilization and that its role for the next half century would be significant. In that regard, the delegation expressing that view was also of the view that one of the Subcommittee's areas of focus should be the contribution of space-based technology to sustainable development.
- 26. The Subcommittee expressed its gratitude to the organizers of the following events held on the margins of the current session of the Subcommittee:
- (a) Presentation and display at the permanent space exhibit of the Office for Outer Space Affairs of the Argentine ARSAT-1 satellite and Tronador rocket models, by Argentina;
- (b) The "Space for global health" event, by ESPI and the Office for Outer Space Affairs;
- (c) Presentation of a model of the Mars Orbiter Mission, donated for the permanent space exhibit of the Office for Outer Space Affairs, by India;
- (d) Press conference on the joint United States-Russian one-year mission to the International Space Station, by Julie Robinson, Chief Scientist for the International Space Station of the National Aeronautics and Space Administration (NASA) at the Johnson Space Center of the United States, and Simonetta Di Pippo, Director of the Office for Outer Space Affairs;
- (e) Presentation of the ESA Rosetta mission, entitled "Rosetta's journey: unlocking the origins of life", by ESA;
- (f) Seminar on space and sustainable development, entitled "Role of space-based applications in disaster risk reduction in the context of the Third World Conference on Disaster Risk Reduction", by Japan;
- (g) Interactive exhibition on the European satellite navigation systems (European Geostationary Navigation Overlay Service (EGNOS) and Galileo), by the European Commission and the European GNSS Agency.

D. National reports

27. The Subcommittee took note with appreciation of the reports submitted by Member States (A/AC.105/1077 and Add.1 and 2, A/AC.105/C.1/2015/CRP.17 and A/AC.105/C.1/2015/CRP.18) for its consideration under agenda item 3, "General exchange of views and introduction of reports submitted on national activities". The Subcommittee recommended that the Secretariat continue to invite Member States to submit annual reports on their space activities.

E. Symposium

28. On 2 February, COSPAR organized a symposium on the theme "Measuring the universe: looking back in time with modern astronomy", which was moderated by Karl-Heinz Glassmeier of COSPAR.

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29. The presentations given at the symposium included the following: "Measuring the Universe" by Karl-Heinz Glassmeier of the COSPAR Bureau and the Technical University of Braunschweig, Germany; "The Gaia mission" by Timo Prusti of the ESA Scientific Support Office, European Space Research and Technology Centre, Noordwijk, the Netherlands; "Gaia, the galaxy in one petabyte" by Carme Jordi of the Institute of Cosmos Sciences, University of Barcelona, Spain; "Space science satellites in Brazil 2014" by Francisco Jablonski, the National Institute for Space Research (INPE) of the Ministry of Science, Technology and Innovation, São José dos Campos, Brazil; "GalileoMobile: bringing astronomy to rural areas" by Maria Dasi Espuig and Mayte Vasquez, of the GalileoMobile project, Imperial College London, United Kingdom and the German Aerospace Centre Oberpfaffenhofen, Munich, Germany; and "Gaia and the epistemology of astrophysics" by Sibylle Anderl, Université Joseph Fourier, Grenoble, France.

F. Adoption of the report of the Scientific and Technical Subcommittee

30. After considering the items before it, the Subcommittee, at its [...] meeting, on 13 February 2015, adopted its report to the Committee on the Peaceful Uses of Outer Space, containing its views and recommendations, as set out in the paragraphs below.

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