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Ways and means of maintaining outer space for peaceful purposes

Views of States members of the Committee on the Peaceful Uses of Outer Space on transparency and confidence-building measures in outer space activities

Note by the Secretariat

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* [A/AC.105/L.307](#).



I. Introduction

1. In the report on its fifty-ninth session, the Committee on the Peaceful Uses of Outer Space agreed that States members of the Committee should be invited to submit their views on transparency and confidence-building measures in outer space activities, on the report of the Group of Governmental Experts on Transparency and Confidence-Building Measures in Outer Space Activities (see [A/68/189](#)) and on the special report by the Inter-Agency Meeting on Outer Space Activities on the implementation of the report of the Group of Governmental Experts ([A/AC.105/1116](#)) to the sixtieth session of the Committee, in 2017, and that those matters should be addressed under the item on ways and means of maintaining outer space for peaceful purposes ([A/71/20](#), para. 272).
2. In a note verbale dated 26 January 2017, the Secretary-General invited States members of the Committee to submit their reports by 25 March 2017. The present note was prepared by the Secretariat on the basis of the replies received to that invitation.

II. Reply received from a State member of the Committee

Canada

[Original: English]
[3 April 2017]

Canada believes that the international community must adopt new rules of behaviour in outer space, such as transparency and confidence-building measures. These can solidify international norms in outer space, creating greater mutual understanding, reducing tension and, ultimately, contributing to a safe, sustainable and secure outer space environment. Such measures offer pragmatic and near-term steps to increase information shared between States in order to reduce miscalculations based on the misperception of the actions of others in space and build overall confidence among all States in the peaceful use of outer space. By building increased trust and openness in the space environment, we create the climate of confidence necessary to develop future legally-binding measures governing outer space.

Canada therefore strongly supports the implementation of the recommendations contained in the 2013 report of the Group of Governmental Experts on Transparency and Confidence-Building Measures in Outer Space Activities ([A/68/189](#)) and, accordingly, has co-sponsored the resolutions entitled “Transparency and confidence-building measures in outer space activities” submitted annually to the General Assembly since its sixty-fifth session. Correspondingly, in accordance with paragraph 8 of General Assembly resolution 70/53, Canada would like to submit the present reply detailing Canada’s implementation of the recommendations of the Group of Governmental Experts, and calls upon all States to promptly implement those recommendations.

Details of Canada’s implementation of the recommendations of the Group are set out in the annex. Canada would, however, like to highlight the main elements of its submission. Canada sees the national implementation of existing international instruments governing space activities as a vital condition for maintaining space as a secure, safe and sustainable environment. Accordingly, Canada has signed the four core outer space treaties; the Constitution and the Convention of the International Telecommunication Union and its Radio Regulations; the Convention of the World Meteorological Organization; the Treaty Banning Nuclear Weapon Tests in the Atmosphere, in Outer Space and under Water; and the Comprehensive Nuclear-Test-Ban Treaty. Canada has also implemented in its national legislation principles and guidelines adopted by the international community, such as the Space Debris

Mitigation Guidelines of the Committee on the Peaceful Uses of Outer Space and the Principles Relating to Remote Sensing of the Earth from Outer Space.

Canada sees information exchange as a key measure that can pave the way to the establishment of many other forms of transparency and confidence-building measures. Canada published *Canada's Space Policy Framework* in 2014, it submits an annual report to the Scientific and Technical Subcommittee detailing its main space activities and it intends to make public future space-related policies and strategies. Canada maintains a national registry of space objects and makes a concerted effort to update it as soon as practicable. In addition, Canada provides refined conjunction assessments to operators in response to initial close-approach notifications and shares space weather information, including on solar flares, free of charge.

Canada is actively engaged in international and multilateral forums for discussing space issues, pursues collaboration on a bilateral basis and is a subscribing member to the Hague Code of Conduct. Canada strongly values the contribution of international and non-governmental organizations to supporting the continued peaceful uses of outer space and collaborates with such organizations to foster research and outreach.

Canada is engaged in the development of the guidelines for the long-term sustainability of outer space activities, an important transparency and confidence-building measure. Canada welcomes the adoption of a first set of voluntary guidelines for the long-term sustainability of outer space and calls on spacefaring nations to implement those guidelines at the earliest opportunity. Canada is honoured to chair the Committee in 2016 and 2017 and will continue to actively participate in the finalization of the second set of voluntary guidelines and the resulting compendium to be submitted for adoption by the General Assembly in 2018, which will complete the work of the Working Group on the Long-term Sustainability of Outer Space Activities. The compendium of guidelines will contribute to strengthening norms of behaviour in outer space activities. It will also contribute to ensuring that the international community can further leverage space and space assets for sustainable development on Earth and socioeconomic benefits for humankind.

Furthermore, Canada strongly believes in the importance of considering space issues in a holistic fashion and supports a stronger and more sustained dialogue between the disarmament and civilian space communities. Accordingly, Canada attended the first joint meeting, in 2015, of the First and Fourth Committees of the General Assembly, to address possible challenges to space security and sustainability, which was a specific recommendation of the report of the Group of Governmental Experts. Canada also welcomes the convening of a second joint meeting in New York, in 2017, on the occasion of the fiftieth anniversary of the Outer Space Treaty. Canada hopes that that meeting will serve not only to recognize the important contribution of the Treaty to the international legal framework governing space activities, but also to discuss how the framework can further be improved and provide momentum to current initiatives to strengthen the framework, including through transparency and confidence-building measures.

In order to benefit most from the upcoming joint meeting and to transition from symbolic to practical work, we, as the international community, must plan early and seize every opportunity to explore the intersections between the work of the two Committees, and determine how they can benefit from each other's work. Increased practical coordination and communication between disarmament and civil space communities at one meeting every two years cannot alone serve the purposes of holistic treatment of space by the international community.

Annex

Summary of Canada's implementation of the recommendations of the Group of Governmental Experts on Transparency and Confidence-Building Measures in Outer Space Activities

Recommendation

(Report of the Group of Governmental Experts on Transparency and Confidence-Building Measures in Outer Space Activities (A/68/189))

Action taken

Information exchange on space policies

States should publish information on their national space policies and strategies, including those relating to security. States should also publish information on their major outer space research and space applications programmes in order to build a climate of trust and confidence between States worldwide on military and non-military matters. This should be carried out in line with existing multilateral commitments. States may provide any additional information reflecting their relevant defence policy, military strategies and doctrines (para. 37).

Canada implements this transparency measure by publishing goals and strategies for its national space activities, such as the 2014 Canada's Space Policy Framework and the upcoming 2017 National Space Strategy. Canada also submits an annual report to the Scientific and Technical Subcommittee detailing its main space activities. Canada has also published space security policies in the past, and intends to publish future defence space policies as they develop.

Information exchange and notifications related to outer space activities

Exchanges of information on the basic orbital parameters of outer space objects may assist in increasing the accuracy of the tracking of space objects. Specific measures could include:

(a) Exchange of information on the orbital elements of space objects and the provision, to the extent practicable, of notifications of potential orbital conjunctions involving spacecraft to affected government and private sector spacecraft operators;

(b) Provision of registration information to the United Nations as soon as practicable, in accordance with the Convention on Registration of Objects Launched into Outer Space (1975) and General Assembly resolution 62/101, entitled "Recommendations on enhancing the practice of States and international intergovernmental organizations in registering space objects";

(c) Provision of public access to national registries of space objects. Such notifications, through bilateral, regional and multilateral mechanisms, can provide transparency regarding specific space activities. Shared awareness of spaceflight activity may foster global spaceflight safety and contribute to avoidance of mishaps, misperceptions and mistrust (para. 39).

Canada currently implements these measures. The Canadian Space Agency (CSA) Satellite Operations (SATOPS) division provides refined conjunction assessments to operators in response to initial close-approach notifications from the United States Joint Space Operations Center. The CSA SATOPS division also works with the Department of National Defence Canadian Space Operations Centre to refine orbital data to aid in the conjunction assessment process.

In addition, Canada adheres to the Convention on Registration of Objects Launched into Outer Space, submitting its information to the Office for Outer Space Affairs. Canada also maintains a national registry of space objects and makes a concerted effort to update it as soon as practicable. Once an object has been registered in its national register, Canada provides registration information to the United Nations in compliance with the Convention on Registration of Objects Launched into Outer Space and General Assembly resolution 62/101.

Recommendation

(Report of the Group of Governmental Experts on Transparency and Confidence-Building Measures in Outer Space Activities (A/68/189))

Action taken

In accordance with the Outer Space Treaty, States should immediately inform other States or the Secretary-General of the United Nations of any phenomena they discover in outer space, including on the Moon and other celestial bodies, which could constitute a danger to the life or health of astronauts or to human spaceflight activity. States should also consider providing, on a voluntary basis, timely information to other governmental and non-governmental spacecraft operators of natural phenomena that may cause potentially harmful interference to spacecraft engaged in the peaceful exploration and use of outer space (para. 40).

States should provide pre-launch notifications of space vehicle launches and the mission of launch vehicles. The Group noted that the Hague Code of Conduct against Ballistic Missile Proliferation provides an example of such a notification (para. 41).

Risk reduction notifications

States should notify, in a timely manner and to the greatest extent practicable, potentially affected States of scheduled manoeuvres that may result in risk to the flight safety of the space objects of other States (para. 42).

States should support the development and implementation of measures to exchange information with and notify, in a timely manner and to the greatest extent practicable, all States that may be affected, the Secretary-General of the United Nations and relevant

Canada implements this measure by providing space weather alerts through the Natural Resources Canada space weather website (spaceweather.gc.ca/index-en.php) and e-mail distribution. Canada's Dominion Radio Astrophysical Observatory also manages the Solar Radio Monitoring Program, which plays a key role in space weather forecasting and is being used by telecommunication operators (satellite and terrestrial), hydroelectric companies, the space weather community, as well as for communications prediction and ionospheric modelling, terrestrial environmental studies and research into global climate change. The data are distributed free of charge.

Canada is a subscribing State to the Hague Code of Conduct. Canada is not currently a launching State and thus does not provide notification of space launches. Canada has the capacity and intent to provide such notifications, consistent with its adherence to the Code, if it were to become a launching State.

Canada's space debris management system performs manoeuvre coordination with affected States when needed. The space debris management system refines avoidance manoeuvres and shares the analysis with cooperating spacecraft operators. Canada also contributes the Sapphire satellite to the United States Space Surveillance Network, providing precise and timely measurement information and improving the overall fidelity of the United States Space-Track catalogue.

Canada regulates operation of space objects in consonance with the legal framework established by international law and by specific legislation that it has enacted for this purpose, such as the Remote Sensing Space Systems Act, which imposes specific conditions relating to the Keplerian orbital elements and disposal plan for the entire remote sensing space system, including the satellite.

By request, Canada offers a free subscription to its Collision Risk Assessment and Mitigation System, equipping national and international organizations with the information necessary to make informed decisions. Re-entry information is also shared,

Recommendation

(Report of the Group of Governmental Experts on Transparency and Confidence-Building Measures in Outer Space Activities (A/68/189))

Action taken

international organizations of predicted high-risk re-entry events in which the re-entering space object or residual material from the re-entering space object potentially could cause significant damage or radioactive contamination (para. 43).

as required and when necessary, with national organizations. Canada is a member of the Inter-Agency Space Debris Coordination Committee (IADC), which has procedures for notification and monitoring of annual high-risk re-entry test campaigns.

Canada's domestic regulatory framework, the Remote Sensing Space Systems Act, requires all licensed systems to ensure the eventual disposal of satellite systems, according to international norms, thus reducing the likelihood of high-risk re-entry events.

States should, in a timely manner and to the greatest extent practicable, notify all other potentially affected States of events linked to natural and man-made threats to the flight safety of space objects. These may include risks caused by the malfunctioning of space objects or loss of control that could result in a significantly increased probability of a high-risk re-entry event or a collision between space objects (para. 44).

Canada, to the extent possible, participates in the annual IADC re-entry test campaigns of uncontrolled re-entries of space objects. Canada contributes the Sapphire satellite to the United States Space Surveillance Network for its use in providing threat assessment and warning to spacecraft operators.

Intentional destruction of any on-orbit spacecraft and launch vehicle orbital stages or other harmful activities that generate long-lived debris should be avoided. When intentional break-ups are determined to be necessary, States should inform other potentially affected States of their plans, including measures that will be taken to ensure that intentional destruction is conducted at sufficiently low altitudes to limit the orbital lifetime of resulting fragments. All actions should be carried out in conformity with the Space Debris Mitigation Guidelines of the United Nations as endorsed by the General Assembly in its resolution 62/217, entitled "International cooperation in the peaceful uses of outer space" (para. 45).

Canada's Remote Sensing Space Systems Act contains provisions to limit the lifetime of objects in space, demonstrating Canada's commitment to the Space Debris Mitigation Guidelines of the United Nations. Canadian licensing requirements for the allocation of radio spectrums also include a demonstration of compliance with International Telecommunication Union recommendation ITU-R S.1003-2, on environmental protection of the geostationary-satellite orbit, or for non-geostationary orbits networks, as well as compliance with the IADC space debris mitigation guidelines.

Contact and visits to space launch sites and facilities

Voluntary familiarization visits can provide opportunities to improve international understanding of a State's processes and procedures for space activities, including dual-use and military activities, and can provide context for the development and implementation of notifications and consultations (para. 46).

Canada regularly welcomes international delegations to the Canadian Space Agency for briefings, meetings and tours to include the space robotics centre. In addition, visits to the science laboratories are also made available, depending on the interest of visitors.

Taking note of article X of the Outer Space Treaty, as well as other multilateral commitments, States are encouraged to consider, on a voluntary basis, expert visits to

Canada welcomes visits to the CSA SATOPS centre, as appropriate.

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(Report of the Group of Governmental Experts on Transparency and Confidence-Building Measures in Outer Space Activities (A/68/189))

Action taken

space facilities. Such visits could include space situational awareness centres (para. 47).

Demonstrations of rockets and other space-related technologies could be carried out on a voluntary basis and in line with existing multilateral commitments and national export control regulations (para. 48).

Canada welcomes visits to space-related technologies facilities in accordance with export control and technology transfer regimes.

International cooperation

International cooperation in the peaceful uses of outer space provides a basis for all States to develop and strengthen their capacity to undertake and/or derive benefits from space activities. International cooperation on scientific and technical projects between both spacefaring and non-spacefaring nations can contribute to confidence-building.

International cooperation is an important vehicle for promoting the right of each nation to achieve its legitimate objectives of benefiting from space technology for its own development and welfare (paras. 49 and 51).

Bilateral, regional and multilateral capacity-building programmes on space science and technologies can contribute to developing the space skills and knowledge of educators and scientists in developing countries throughout the world. Such programmes should build capacity through a focus on theory, research, applications, field exercises and pilot projects in order to advance social and economic development in their target States and regions. The Group noted that there are many regional and multilateral capacity-building programmes already in place. In particular, the United Nations Programme on Space Applications is a well-established capacity-building programme that would benefit from wider support from spacefaring countries. Other international organizations, such as the United Nations Educational, Scientific and Cultural Organization, the World Meteorological Organization and the International Telecommunication Union, contribute specific capacity-building programmes in their respective areas of competence. Capacity-building programmes are also available, in various formats, at the bilateral level. Such programmes are often associated with a specific cooperation agreement (para. 55).

Canada is currently implementing this measure through several bilateral and multilateral programmes designed to enhance international cooperation. For CSA, international collaboration is critical to meeting its mission mandate. Examples of such collaboration include, inter alia, the Group on Earth Observations (GEO) and the Committee on Earth Observation Satellites (CEOS).

CEOS, through its Working Group on Capacity Building and Data Democracy, and GEO, through its regional initiatives, are international bodies through which Canada contributes to and benefits from joint capacity-building efforts.

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Action taken

Adoption of an open satellite data-collection and dissemination policy for sustainable economic and social development would be consistent with General Assembly resolution 41/65, entitled "Principles relating to remote sensing of the Earth from outer space". In promoting data dissemination policies, States could also consider establishing programmes aimed at training and educating users in developing countries to receive and interpret relevant satellite-based data and to make such data available, useful and accessible to domestic and international end users. The Group noted that some States already disseminate free remote sensing data for the promotion of economic and social development. The Group also noted that the United Nations Conference on Sustainable Development, held in Rio de Janeiro, Brazil, in 2012, recognized the important role that space science and technology play in promoting sustainable development (see General Assembly resolution 66/288, annex) (para. 56).

Canada, as a member of GEO, fully subscribes to the free and open data-sharing principles. The GEO and CEOS initiatives on the Sustainable Development Goals are aimed at fostering the use of Earth observation data to monitor and reach the goals. The initiatives partner with organizations such as the Office for Outer Space Affairs, the World Bank, the Global Partnership for Sustainable Development Data and the World Meteorological Organization to share and foster the use of Earth observation data. In addition, Canada is Vice-Chair of the Group on Earth Observations Biodiversity Observation Network, which aims to improve the acquisition, coordination and delivery of biodiversity observations and related services to users, including decision makers and the scientific community. Canada also leads the secretariat of the Joint Experiment of Crop Assessment and Monitoring experiments aimed at facilitating international standards for data products, in support of the development of a global system of systems for agricultural crop assessment and monitoring.

In addition, through its Directive on Open Government, it is Canada's intent to provide synthetic aperture radar imagery obtained through the planned RADARSAT Constellation Mission (while appropriately balancing national security interests) to the general public, free of charge.

Consultative mechanisms

Timely and routine consultations through bilateral and multilateral diplomatic exchanges and other government-to-government mechanisms, including bilateral, military-to-military, scientific and other channels, can contribute to preventing mishaps, misperceptions and mistrust. They may also be useful in:

- (a) Clarifying information regarding the exploration and use of space, including for national security purposes;
- (b) Clarifying information provided on space research and space applications programmes;
- (c) Clarifying ambiguous situations;
- (d) Discussing the implementation of agreed transparency and confidence-building measures in outer space activities;

Canada is engaged in a number of bilateral and multilateral consultative initiatives, such as diplomatic dialogues on space security issues with the Group of Seven and through broader non-proliferation, disarmament and arms control consultations, as well as targeted exchanges on space issues at the bilateral level. These initiatives serve to clarify national space policies and positions and reinforce the importance of adopting appropriate norms of behaviour in the conduct of outer space activities, in particular transparency and confidence-building measures, to increase trust and reduce the risks of misperception and miscalculation. Canada also engages in a number of military-to-military bilateral and multiparty arrangements for research and development. Canada participates in multilateral forums for discussing space issues, including the

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Action taken

(e) Discussing the modalities and appropriate international mechanisms for addressing practical aspects of outer space uses;

(f) Preventing or minimizing potential risks of physical damage or harmful interference.

States are encouraged to consider using existing consultative mechanisms, for example, those provided for in article IX of the Outer Space Treaty and in the relevant provisions of the International Telecommunication Union Constitution and Radio Regulations (paras. 57 and 58).

Committee on the Peaceful Uses of Outer Space, the Conference on Disarmament, the United Nations Disarmament Commission and the International Telecommunication Union. To address both international coordination to avoid harm and the International Telecommunication Union Radio Regulations, Canada engages in bilateral and multilateral coordination discussions and agreements to prevent harmful radio interference. Canada also notifies the frequency assignment of our satellite networks to the International Telecommunication Union, for inclusion in the International Telecommunication Union Master International Frequency Register. Canada actively supports initiatives to increase transparency and confidence-building measures, including the development and implementation of the long-term sustainability guidelines.

Outreach

Outreach measures can improve understanding between States as well as regional, multilateral, non-governmental and private sector cooperation. This can help to promote the security of all States by fostering mutual trust through the implementation of political and diplomatic outreach measures relating to outer space activities. Specific measures may include States' participation in thematic workshops and conferences on space security issues (para. 60).

Spacefaring States should inform the Secretary-General, the general public and the international scientific community of the character, conduct, locations and results of outer space activities, in accordance with the Outer Space Treaty (para. 61).

The Group noted the important intellectual contribution of international organizations and non-governmental organizations to facilitating outreach activities. Such activities provide an opportunity for all States and other relevant stakeholders to develop constructive dialogue. Within the United Nations system, the work of the Office for Outer Space Affairs, the Office for Disarmament Affairs and the United Nations Institute for Disarmament Research are of particular note. States should actively encourage all stakeholders, including academia and non-governmental organizations, to actively participate in raising public awareness about outer space policies and activities (para. 62).

Canada regularly participates in United Nations-sponsored workshops and conferences, including the Committee's thematic workshops and meetings, and the annual United Nations Institute for Disarmament Research Space Security Conference. Canada also regularly participates in the Association of Southeast Asian Nations Regional Forum Workshop on Space Security.

Canada routinely publishes information on its outer space activities on the Canadian Space Agency website and in its annual report to the Committee, as well as through presentations at conferences and workshops and public diplomacy.

Canada strongly values the contribution of international and non-governmental organizations to supporting the continued peaceful uses of outer space and collaborates with such organizations to foster research and outreach. Canada maintains a well-established collaboration with Project Ploughshares on the annual Space Security Index, and is working with the McGill Institute of Air and Space Law on a Conference on Global Space Governance, the outcome of which will inform the Committee's UNISPACE+50 process. Canada maintains a long-standing collaboration with the Simons Centre for Disarmament and Non-Proliferation Research

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Action taken

at the University of British Columbia, which provides scholarships to support the development of a new generation of young Canadian scholars dedicated to further expanding their knowledge and expertise on critical disarmament and non-proliferation issues, including space security. Canada has also facilitated attendance at Committee and General Assembly meetings by members of academia and non-governmental organizations, including by welcoming them in Canada's delegations.

Furthermore, Canada supports various academic institutions in the development of space-related knowledge, for example, by providing funding for various seminars and engagements through the Defence Engagement Program, including providing support to the Manual on International Law Applicable to Military Uses of Outer Space Project.

Coordination

States are encouraged, including through their space agencies or other authorized entities, existing mechanisms and international organizations, to promote the coordination of their space policies and space programmes in order to enhance the safety and predictability of the uses of space. In support of that goal, they may also conclude bilateral, regional or multilateral arrangements, consistent with multilateral commitments (para. 63).

The Group agreed that, for the purpose of strengthening coordination in outer space activities, States, international organizations and private sector actors conducting space programmes should establish focal points for coordination (para. 65).

States should seek to participate, to the maximum extent possible, in the outer space-related activities of intergovernmental entities of the United Nations system, such as the Conference on Disarmament, International Telecommunication Union, World Meteorological Organization, the Commission on Sustainable Development and any of their successor bodies. States conducting space activities should actively participate, as members or observers, in activities of the Committee on the Peaceful Uses of Outer Space (para. 67).

Canada holds a range of bilateral and multilateral discussions on space matters in which its space policies and programmes are discussed.

Canada, through the CSA SATOPS centre, maintains contact information on a number of owner/operators to ensure the swift dissemination of operational information. In addition, the CSA Policy office maintains a list of national and international points of contact for coordination and discussions on a wide range of space activities.

Canada actively participates in United Nations space-related activities, including the Committee, the Conference on Disarmament, the International Telecommunication Union and the World Meteorological Organization. Canada is honoured to chair the Committee (2016-2018), and has made the broadening of the Committee's membership a priority of its chairmanship.

Recommendation

(Report of the Group of Governmental Experts on Transparency and Confidence-Building Measures in Outer Space Activities (A/68/189))

*Action taken**Conclusions and recommendations*

The Group of Governmental Experts recommends that States and international organizations, on a voluntary basis and without prejudice to the implementation of obligations deriving from existing legal commitments, consider and implement the transparency and confidence-building measures described in the present report (para. 68).

The Group endorses efforts to pursue political commitments, for example, in the form of unilateral declarations, bilateral commitments or a multilateral code of conduct, to encourage responsible actions in, and the peaceful use of, outer space. The Group concludes that voluntary political measures can form the basis for consideration of concepts and proposals for legally binding obligations (para. 69).

The Group encourages States to review and implement the proposed transparency and confidence-building measures through relevant national mechanisms on a voluntary basis. Transparency and confidence-building measures should be implemented to the greatest extent practicable and in a manner that is consistent with States' national interests. As specific unilateral, bilateral, regional and multilateral transparency and confidence-building measures are agreed to, States should regularly review the implementation of the measures and discuss potential additional ones that may be necessary, including those necessitated owing to advances in the development of space technologies and in their application (para. 70).

In order to build confidence and trust among States, the Group recommends universal participation in, implementation of and full adherence to the existing legal framework relating to outer space activities, to which they are parties, or subscribe, which includes: the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies; the Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space; the Convention on International Liability for Damage Caused by Space Objects; the

Canada strongly supports the implementation of the recommendations contained in the report of the Group of Governmental Experts on Transparency and Confidence-Building Measures in Outer Space Activities (A/68/189) and, accordingly, has co-sponsored the resolutions entitled "Transparency and confidence-building measures in outer space activities" submitted annually to the General Assembly since its sixty-fifth session.

Canada believes that the international community must adopt new rules of behaviour in outer space, such as transparency and confidence-building initiatives, which would help solidify international norms and establish the climate of confidence necessary to develop additional legally-binding measures governing outer space.

Canada is currently reviewing its national governance framework in order to ensure it is meeting all of its treaty obligations and transparency and confidence-building measures and objectives. Additionally, Canada is working with the McGill Institute of Air and Space Law on a Conference on Global Space Governance, the outcome of which will inform the United Nations UNISPACE+50 process.

Canada has signed and ratified the four core outer space treaties, namely, the Outer Space Treaty; the Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space; the Convention on International Liability for Damage Caused by Space Objects; and the Convention on Registration of Objects Launched into Outer Space. Canada has also signed the Constitution and the Convention of the International Telecommunication Union and its Radio Regulations; the Convention of the World Meteorological Organization; the Treaty Banning Nuclear Weapon Tests in the

Recommendation

(Report of the Group of Governmental Experts on Transparency and Confidence-Building Measures in Outer Space Activities (A/68/189))

Action taken

Convention on Registration of Objects Launched into Outer Space; the Constitution and the Convention of the International Telecommunication Union and its Radio Regulations, as amended; the Convention of the World Meteorological Organization, as amended; the Treaty Banning Nuclear Weapon Tests in the Atmosphere, in Outer Space and under Water; and the Comprehensive Nuclear-Test-Ban Treaty. States that have not yet become parties to the international treaties governing the use of outer space should consider ratifying or acceding to those treaties (para. 71).

The Group of Governmental Experts recommends that the General Assembly decide how to further advance transparency and confidence-building measures and provide for their universal consideration and support, including by referring the above recommendations to the Committee on the Peaceful Uses of Outer Space, the Disarmament Commission and the Conference on Disarmament for consideration, as appropriate. The First and Fourth Committees of the General Assembly may also decide to hold a joint ad hoc meeting to address possible challenges to space security and sustainability (para. 72).

The Group further recommends that Member States take measures to implement, to the greatest extent practicable, principles and guidelines endorsed on the basis of consensus by the Committee on the Peaceful Uses of Outer Space and the General Assembly. Member States should also consider, where appropriate, taking measures to implement other internationally recognized space-related principles (para. 73).

Atmosphere, in Outer Space and under Water; and the Comprehensive Nuclear-Test-Ban Treaty. Increasing ratification and accession to the four core space treaties is one of Canada's priorities for its chairmanship of the Committee.

Canada strongly believes in the importance of considering space issues in a holistic fashion and supports a stronger and more sustained dialogue between the disarmament and civilian space communities. Accordingly, Canada attended, in 2015, the first joint meeting of the First and Fourth Committees of the General Assembly, to address possible challenges to space security and sustainability. Canada also welcomes the convening of a second joint meeting in New York, in 2017, on the occasion of the fiftieth anniversary of the Outer Space Treaty. Canada hopes this meeting will serve not only to recognize the important contribution of the Treaty to the international legal framework governing space activities, but also to discuss how the framework can further be improved and provide momentum to current initiatives to strengthen the framework, including through transparency and confidence-building measures.

Canada implements the Space Debris Mitigation Guidelines through the Remote Sensing Space Systems Act and through its licensing requirements for the allocation of radio spectrums, which include a demonstration of compliance with International Telecommunication Union recommendation ITU-R S.1003-2, on environmental protection of the geostationary-satellite orbit, or for non-geostationary orbits networks.

Additionally, Canada actively participates in the Legal Subcommittee of the Committee and has been engaged in the drafting of non-legally-binding principles and guidelines such as the Principles Relating to the Remote Sensing of the Earth from Outer Space, the Principles Relevant to the Use of Nuclear Power Sources in Outer Space, and the United Nations Space Debris Mitigation Guidelines.