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Committee on the Peaceful Uses of Outer Space

Recommendations of the Group of Governmental Experts on Transparency and Confidence-building Measures in Outer Space Activities: views of States members of the Committee on the Peaceful Uses of Outer Space

Note by the Secretariat

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I. Introduction

1. In the report on its fifty-seventh session, the Committee on the Peaceful Uses of Outer Space agreed that at its fifty-eighth session, in 2015, it would consider the recommendations contained in the report of the Group of Governmental Experts on Transparency and Confidence-Building in Outer Space Activities (A/68/189), with a view to identifying those recommendations that could, to the extent practicable, be adapted to and instrumental for ensuring the safety of space operations and the long-term sustainability of outer space activities in general (A/69/20, para. 373).

2. In a note verbale dated 31 July 2014, the Secretary-General invited States members of the Committee on the Peaceful Uses of Outer Space to submit, by 20 October 2014, their views on the modalities of making practical use of the recommendations. The present note was prepared by the Secretariat on the basis of replies received in response to that invitation.

II. Replies received from States members of the Committee

Germany

[Original: English]
[27 October 2014]

Modalities of making practical use of the recommendations contained in the report of the Group of Governmental Experts

Germany reiterates its appreciation of the report prepared by the Group of Governmental Experts on Transparency and Confidence-building Measures in Outer Space Activities. The recommendations contained therein provide valuable guidance for maintaining outer space for peaceful purposes through enhanced space security and safe and responsible conduct of outer space activities.

Measures that augment the safe and sustainable conduct of activities in outer space equally contribute to attaining transparency and to building confidence in the use of outer space, and vice versa. This basic interrelationship has been acknowledged by the Group of Governmental Experts. It is also reflected in the partial congruence of the items under consideration by the Working Group on the Long-term Sustainability of Outer Space Activities with the measures proposed by the Group of Governmental Experts. Various forms of information exchange are addressed in both contexts, and the further development of norms of behaviour that promote the safety of space operations is seen as a contribution to the objectives of sustainability as well as of space security.

Some measures that enhance the safe and interference-free conduct of space activities are currently being discussed in the Working Group on the Long-term Sustainability of Outer Space Activities, which may draw, in its further work, on the recommendations contained in the report of the Group of Governmental Experts (A/68/189). Beyond the scope of the Working Group, the initiation of a further process for the development of safety-related norms should be considered in order to arrive at a substantive and coherent system of norms that

promotes safety in accessing into and returning from outer space, as well as in space operations, by avoiding physical and radio-frequency interference.

Germany believes that these items ought to be addressed in the scope of the Committee on the Peaceful Uses of Outer Space. Many of the questions related to the development of safety measures touch upon the application and further enhancement of the current regulatory framework governing outer space activities. The basic mandate of the Committee to address the regulatory implications of outer space activities should remain the principal consideration for guiding its further work. The Committee is well positioned to address technical as well as legal considerations that are required for ensuring the safe and responsible conduct of space activities.

United States of America

[Original: English]
[30 October 2014]

Introduction

The United States of America is pleased to provide its views on how to make practical use of the recommendations contained in the report of the United Nations Group of Governmental Experts on Transparency and Confidence-building Measures in Outer Space Activities (A/68/189), in the context of the ongoing work of the Scientific and Technical Subcommittee's Working Group on the Long-term Sustainability of Outer Space Activities.

The United States continues to support the Working Group on the Long-term Sustainability of Outer Space Activities, established by the Scientific and Technical Subcommittee of the Committee on the Peaceful Uses of Outer Space at the Subcommittee's forty-seventh session, in 2010, and welcomes the proposal by the Chair of the Working Group for the consolidation of the set of draft guidelines on the long-term sustainability of outer space activities (A/AC.105/2014/CRP.5), dated 3 June 2014. The United States strongly hopes that the draft guidelines will be ready for approval by the Committee, and for referral to the General Assembly for adoption, in 2016.

The United States also welcomes the achievement of landmark consensus by the Group of Governmental Experts on Transparency and Confidence-building Measures in Outer Space Activities. The study by the Group of Governmental Experts was a unique opportunity to establish consensus on the importance and priority of voluntary and pragmatic transparency and confidence-building measures to ensure the sustainability and safety of the space environment, as well as to strengthen stability and security in space for all nations.

The United States is pleased that the General Assembly, at its sixty-eighth session in 2013, welcomed the note by the Secretary-General transmitting the report of the Group of Governmental Experts on Transparency and Confidence-building Measures in Outer Space Activities (A/68/189); encouraged Member States to review and implement, to the greatest extent practicable, the proposed transparency and confidence-building measures contained in the report,

through relevant national mechanisms, on a voluntary basis and in a manner consistent with the national interests of Member States; and requested the Secretary-General to circulate the report to all other relevant entities and organizations of the United Nations system (including the Committee) in order that they may assist in effectively implementing the conclusions and recommendations contained therein, as appropriate.¹

In this context, the United States welcomes the opportunity to share its views on: transparency and confidence-building measures identified by the Group of Governmental Experts that are relevant to the work of the Committee, in particular the Committee's Working Group on the Long-term Sustainability of Outer Space Activities; United States implementation of certain transparency and confidence-building measures recommended by the Group; and considerations for the Committee on how to leverage the work of the Group.

Transparency and confidence-building measures identified by the Group of Governmental Experts of relevance to the Committee, and implementation by the United States

The report of the Group of Governmental Experts on Transparency and Confidence-building Measures in Outer Space Activities acknowledges that outer space transparency and confidence-building measures can augment the safety, sustainability and security and stability of day-to-day space operations and can contribute both to the development of mutual understanding and to the strengthening of friendly relations between States and peoples. The United States believes the transparency and confidence-building measures below (taken from relevant parts of the identified paragraphs of the Group's report (A/68/189)) are of greatest relevance to the work of the Committee, in particular, the Working Group on the Long-term Sustainability of Outer Space Activities.

Information exchange on space policies

Paragraph 37 of the report of the Group of Governmental Experts on Transparency and Confidence-building Measures in Outer Space Activities states:

States should publish information on their national space policies and strategies...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.

This measure is consistent with the many years of experience the Committee has in exchanging information among Member States about their space policies, strategies, and outer space research and applications programmes. The Committee should continue to be a venue to enable these types of exchanges. Additionally, the Working Group on the Long-term Sustainability of Outer Space Activities is considering guidelines relevant to the sharing of experience and information relevant to the long-term sustainability of outer space activities.

¹ General Assembly resolution 68/50.

The United States implements this measure by publishing principles, goals and strategies for its national space activities, such as the 2010 United States National Space Policy. The United States also participates in bilateral space dialogues with a range of other spacefaring nations, which offer the opportunity to respond to questions regarding both published United States Government policy statements and executive branch submissions to the United States Congress.

Information exchange and notifications related to outer space activities

Paragraph 39 of the report of the Governmental Experts states:

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.

This measure is of relevance to the Committee because of its work on sharing information on space activities, including the work of the Office of Outer Space Affairs of the Secretariat in maintaining a register of space objects provided by States parties to the Convention on Registration of Objects Launched into Outer Space. “Tools to support collaborative space situational awareness” was one of the main topics expressly included for consideration by the Working Group on the Long-term Sustainability of Outer Space Activities in its terms of reference. Indeed, the Working Group’s expert group B produced several draft guidelines relevant to the topics identified here. Consensus guidelines produced by the Working Group related to these topics could represent a concrete step toward implementing these measures, as recommended by the Group of Governmental Experts on Transparency and Confidence-building Measures in Outer Space Activities.

The United States implements these measures today. The United States adheres to the Registration Convention, submitting its information to the Office for Outer Space Affairs and making the United States registry data available through its <https://usspaceobjectsregistry.state.gov> website. The United States also provides registered users of the www.space-track.org website with basic orbital parameters of space objects and provides other spacecraft operators with close approach notifications, on an emergency basis and as requested, regarding potential collision hazards posed by other spacecraft and debris. The United States provides refined conjunction assessments to operators that provide detailed ephemeris data in response to the initial close approach notification.

Paragraph 40 of the report states:

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.

This measure relates primarily to the sharing of space weather information, one of the main topics expressly included for consideration by the Working Group on the Long-term Sustainability of Outer Space Activities in its terms of reference. Indeed, the Working Group's expert group C produced several draft guidelines relevant to this measure. A consensus guideline produced by the Working Group related to this measure could represent a concrete step toward implementing a measure outlined in the report of the Group of Governmental Experts on Transparency and Confidence-building Measures in Outer Space Activities. Additionally, the Committee has an opportunity to discuss progress implementing this measure and potential guidelines through the item on space weather on the agenda of its Scientific and Technical Subcommittee.

The United States implements this measure by providing space weather alerts through the www.swpc.noaa.gov website.

In addition to supporting the flight safety of its own human spaceflight missions, the United States also cooperates with China to minimize space object collision hazards to their human spaceflight programmes. For example, the United States provides close approach notifications to China for its Shenzhou missions.

Risk reduction notifications

Paragraph 42 of the report states:

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.

Manoeuvre notification was one of the topics included for consideration by the Working Group on the Long-term Sustainability of Outer Space Activities in its terms of reference. The Working Group's expert group B studied this topic and determined that coordinating changes of trajectory, as appropriate, with other operators and/or organizations responsible for conjunction assessment was an important aspect of the conjunction assessment process. Including this concept in a consensus guideline produced by the Working Group could represent a concrete step towards implementing this measure, as recommended by the Group of Governmental Experts on Transparency and Confidence-building Measures in Outer Space Activities.

The United States provides other spacecraft operators with close approach notifications on an emergency basis and as requested regarding potential collision hazards posed by other spacecraft and debris. The United States provides refined

conjunction assessments to operators that provide detailed ephemeris data in response to the initial close approach notification regarding potential collision hazards. These refined assessments can help to ensure the efficiency and effectiveness of any evasive manoeuvres performed by cooperating spacecraft operators. The United States uses its space situational awareness information, including information it receives as part of its international space situational awareness-sharing programme, to support operating its own spacecraft so as not to pose a spaceflight safety risk to the space objects of other States.

Paragraph 43 of the report states:

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 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.

Re-entry notification was one of the topics included for consideration by the Working Group on the Long-term Sustainability of Outer Space Activities in its terms of reference. The Working Group's expert group B studied this topic with a focus on limiting the risk to people and property from controlled re-entries, noting the difficulty in providing notifications for uncontrolled re-entries. Including this concept in a consensus guideline produced by the Working Group could represent a concrete step toward implementing this measure, as recommended by the Group of Governmental Experts on Transparency and Confidence-building Measures in Outer Space Activities.

The United States provides notices to airmen and mariners in areas affected by re-entries and has provided notifications of uncontrolled re-entries of several United States space objects, even when the risk to public safety is assessed as extremely low. Additionally, the United States National Aeronautics and Space Administration (NASA) is a member of the Inter-Agency Space Debris Coordination Committee (IADC), which has procedures for notification and monitoring of high-risk re-entry events.

Paragraph 44 of the report states:

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.

The United States participates in the annual IADC re-entry test campaigns of uncontrolled re-entries of space objects. Recent examples of IADC re-entry test campaigns include the cooperative monitoring of uncontrolled re-entries of the United States Upper Atmosphere Research Satellite (UARS) and German ROSAT satellites in 2011, the Russian Phobos-Grunt spacecraft in 2012, and the ESA Gravity Field and Steady-State Ocean Circulation Explorer (GOCE) satellite in 2013.

The United States also has provided information to affected States, as well as the broader international community, regarding a malfunctioning United States satellite (USA-193) in January 2008 and the collision of the Cosmos 2251 and Iridium 33 satellites in February 2009.

Paragraph 45 states:

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”.

This measure endorses the Space Debris Mitigation Guidelines developed by the Committee, specifically guideline 4. The Committee can continue to monitor its implementation through its space debris agenda item.

The United States implemented this measure when it provided diplomatic notifications of plans to engage the USA-193 satellite in February 2008. The United States also provided pre- and post-engagement briefings on debris mitigation measures associated with USA-193. United States activities in this engagement were consistent with the IADC Space Debris Mitigation Guidelines and the Committee’s Space Debris Mitigation Guidelines regarding intentional destruction.

Contact and visits to space launch sites

Paragraphs 46 and 47 of the report state:

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.

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 space facilities [including space launch sites, flight command and control centres, and other operations facilities of outer space infrastructure]. Such visits could include space situational awareness centres.

Although the Committee itself does not play a role in arranging familiarization visits among Member States, the Working Group on the Long-term Sustainability of Outer Space Activities is considering guidelines that promote routine exchanges of information. The value of these information exchanges could be enhanced if experts have the opportunity to visit space operations centres to observe operational procedures for collision avoidance.

In accordance with United States technology transfer law and regulations and multilateral commitments, the United States regularly welcomes visits by international observers to NASA and the National Oceanic and Atmospheric

Administration (NOAA) human spaceflight and robotic spacecraft operations centres. The United States has also invited military and civilian government experts to visit Department of Defense spacecraft operations and the United States Strategic Command's Joint Space Operations Center as part of military-to-military cooperation activities.

International cooperation

Paragraphs 49 and 51 state:

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.

This is of relevance to the work of the Legal Subcommittee in its agenda item entitled "Review of the international mechanisms for cooperation in the peaceful exploration and use of outer space." In accordance with the workplan, the Subcommittee is taking stock of the range of international cooperative mechanisms employed by Member States with a view of developing an understanding of the range of collaborative mechanisms employed by States and international organizations and when and why different mechanisms are favoured by States. This information will be helpful to Member States as they consider relevant mechanisms to facilitate future cooperative endeavours in the peaceful uses of outer space. In this regard, this item is particularly timely in that 2017, the final year of consideration of this agenda item, coincides with the fiftieth anniversary of the Outer Space Treaty.

Additionally, the Working Group on the Long-term Sustainability of Outer Space Activities is examining draft guidelines related to international cooperation. Actively encouraging States to participate in international cooperation through a guideline of the Working Group could provide pragmatic guidance to States relevant to the recommendations of the Group of Governmental Experts on Transparency and Confidence-building Measures in Outer Space Activities.

The United States is currently implementing this measure through a wide-range of bilateral and multilateral mechanisms employed to enhance international cooperation. For NOAA, international collaboration is critical to meeting its mission. NOAA partners bilaterally with its counterparts around the world on both space-based Earth observation data-sharing and on joint satellite missions, and multilaterally through the Group on Earth Observations (GEO) and the Committee on Earth Observation Satellites (CEOS), the Coordination Group for Meteorological Satellites (CGMS), among other forums.

Paragraph 55 of the report states:

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 United Nations Office for Outer Space Affairs is playing a key role in facilitating capacity-building in developing countries, to enable them to use space technology during all phases of disaster management — from early warning to disaster reduction, rescue and rehabilitation. Additionally, capacity-building was one of the main topics expressly included for consideration by the Working Group on the Long-term Sustainability of Outer Space Activities in its terms of reference. Indeed, the Working Group's expert groups A, C and D produced draft guidelines relevant to this measure. Although such activities are already under way, a consensus guideline of the Working Group on capacity-building would serve to reinforce the importance of its activity, as has been done by the Group of Governmental Experts on Transparency and Confidence-building Measures in Outer Space Activities.

The United States is currently implementing this measure by underpinning the work being done within GEO and CEOS, including running the GEONETcast Americas and playing a significant role in the CEOS Working Group on Capacity-building and Data Democracy.

Paragraph 56 of the report states:

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.

One of the most useful sets of principles for sustainable development on Earth is the Principles Relating to the Remote Sensing of the Earth from Outer Space. These Principles introduced the concept of non-discriminatory data availability that has enabled the use of timely and high-quality space-derived geospatial data for sustainable development in application areas such as agriculture, deforestation assessment, disaster monitoring, drought relief, and land management in order to yield significant societal benefits. Dozens of countries now operate Earth observation satellites and cooperate in maximizing the use of information from these spacecraft to aid in the sustainable development of all countries. Under organizations such as CEOS and GEO, satellite data are becoming widely disseminated to user groups in governments, academic institutions and non-governmental bodies around the globe. Work on the critical issue of disaster warning and response has likewise been accelerated through efforts such as the United Nations Platform for Space-based Information for Disaster Management and Emergency Response (UN-SPIDER) programme and the International Charter on Space and Major Disasters.

The expert groups of the Working Group on the Long-term Sustainability of Outer Space Activities produced draft guidelines relevant to data dissemination and capacity-building measures. Although such activities are already under way, a

consensus guideline of the Working Group on capacity-building and data dissemination would serve to reinforce the importance of its activity, as has been done by the Group of Governmental Experts on Transparency and Confidence-building Measures in Outer Space Activities.

Global open data access policies provide access to geospatial data either free of charge or at a nominal cost. For example, the United States Geological Survey (USGS) provides the international community, free of charge, with electronic access to all Landsat scenes held in the USGS-managed national archive of global scenes dating back to Landsat-1, launched in 1972. Additionally, all NASA satellite Earth observation data and derived information products continue to be discoverable, accessible, and available to all at no cost through the NASA Earth Observing System Data and Information System. Likewise, NOAA has provided all of the data from its missions in near-real-time to the international community for decades, as well as providing geostationary satellite coverage over South and Central America for short-term weather forecasting and severe storm monitoring. NOAA also leads several capacity-building activities, including training meteorologists from South and Central America to use satellite data, hosting satellite-user conferences and leading virtual and in-person workshops in Africa, under the auspices of the CEOS Working Group on Capacity-building and Data Democracy. Several other ongoing or planned satellite missions have or will have similar data distribution policies. The principle of open and non-discriminatory data availability has promoted transparency and confidence-building among nations and is of vital importance to the sustainable development on Earth.

Outreach

Paragraph 60 of the report states:

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.

States members of the Committee on the Peaceful Uses of Outer Space and observers frequently host thematic workshops and conferences on the margins of sessions of the Committee and its two Subcommittees. Additionally, the Office for Outer Space Affairs frequently organizes regional workshops, training courses and international meetings focusing on numerous space issues, including global navigation satellite systems, space science and technology applications, space law and more.

The Working Group on the Long-term Sustainability of Outer Space Activities is currently considering a draft guideline related to outreach, based on the inputs of expert group D. Although such activities are already under way, a consensus guideline of the Working Group on outreach would serve to reinforce the importance of its activity, as has been done by the Group of Governmental Experts on Transparency and Confidence-building Measures in Outer Space Activities.

The United States routinely provides expert-level participation in United Nations-sponsored space applications, science and technology workshops, as well as

bilateral and regional space workshops. This includes sponsorship of two Association of Southeast Asian Nations (ASEAN) Regional Forum meetings on space security, held in November 2012 and October 2014, and sponsorship of annual United Nations Institute for Disarmament Research workshops on space security.

Paragraph 61 of the report states:

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.

This measure is consistent with the many years of experience the Committee has in exchanging information among Member States, and with observers of the Committee, about their space policies, strategies, and outer space research and applications programmes. The Committee should continue to be a venue to enable these types of exchanges. Additionally, the Working Group on the Long-term Sustainability of Outer Space Activities is considering guidelines relevant to the sharing of experience and information relevant to the long-term sustainability of outer space activities.

The United States routinely publishes information on its outer space activities through public websites, presentations at conferences and workshops, and public diplomacy.

Paragraph 62 of the report states:

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.

Several non-governmental organizations are currently accredited with observer status with the Committee, in part to facilitate raising public awareness of outer space policies and activities.

The United States also actively seeks inputs from private sector stakeholders on long-term sustainability issues through federal advisory committees, as well as the direct participation of private sector advisors to its delegations to the Committee on the Peaceful Uses of Outer Space. United States experts from academia, professional societies, and industry associations also played key roles in all four expert groups of the Working Group on the Long-term Sustainability of Outer Space Activities.

Coordination

Paragraph 63 of the report states:

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.

This is of relevance to the work of the Committee because exchanges on space policies, strategies, and programmes can facilitate coordinated implementation of current international guidelines for space debris mitigation as well as future guidelines on long-term sustainability.

The United States is currently implementing this measure by pursuing a range of diplomatic and scientific exchanges in bilateral space cooperation dialogues, as well as efforts of this Committee.

Paragraph 65 of the report states:

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.

This is of relevance to the work of the Committee because timely exchanges of information can facilitate collision avoidance efforts as well as responses to space weather events, orbital collisions and other hazards. In this regard, the Working Group on the Long-term Sustainability of Outer Space Activities is currently considering a guideline for exchanges of contact information for appropriate entities responsible for spacecraft operations and conjunction assessment.

The United States is currently implementing this measure by establishing a directory of operations centres and other designated points of contact to ensure timely delivery of orbital close approach notifications. The United States Strategic Command's Joint Space Operations Center has sought to obtain and maintain a roster of contact information for the full range of satellite operations centres. To help obtain this information, the United States has used its bilateral diplomatic dialogues on space cooperation as well as participation in the Committee on the Peaceful Uses of Outer Space.

Paragraph 67 of the report states:

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, ITU [the International Telecommunication Union], WMO [the 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.

This measure makes note of the excellent work of the Committee, along with that of other United Nations entities, in furthering the peaceful exploration and use of outer space.

The United States is an active participant and supporter of the work of the Committee, as well as other space-related activities of the United Nations system in the International Telecommunication Union (ITU), the World Meteorological Organization (WMO) and the United Nations Institute for Disarmament Research.

Other conclusions and recommendations

Paragraph 71 of the report states:

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.

The Committee on the Peaceful Uses of Outer Space and its Legal Subcommittee have a distinguished history of working through consensus to develop space law in a manner that promotes space exploration. The Legal Subcommittee played a key role in establishing the primary Outer Space Treaties: 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 Liability Convention and the Registration Convention. Under the legal framework of these treaties, space exploration by nations, international organizations, and, now, private entities has flourished. As a result, space technology and services contribute immeasurably to economic growth and improvements in the quality of life around the world.

Additionally, the Committee on the Peaceful Uses of Outer Space and its Subcommittees have provided a unique forum to draft non-legally binding principles and guidelines such as the Principles Relating to Remote Sensing of the Earth from Outer Space, Principles Relevant to the Use of Nuclear Power Sources in Outer Space and the Space Debris Mitigation Guidelines of the Committee on the Peaceful Uses of Outer Space.

Today, the Committee on the Peaceful Uses of Outer Space remains the premier international forum for developing mechanisms for and promoting the sustainable use of outer space. The Legal Subcommittee has two standing agenda items intended to reinforce national governance for space sustainability. One of these agenda items invites States to exchange information on national legislation, emphasizing the importance of appropriate means of ensuring that outer space is used for peaceful purposes and that the obligations under international law are implemented. The other item invites States to exchange information on national mechanisms relating to space debris mitigation measures. This exchange of information is important because it allows countries to gain lessons learned from their neighbours and partners, and potentially implement similar mechanisms and processes.

The United States adheres to the “four core” space treaties, the Constitution, Convention and associated Regulations of the International Telecommunication

Union, the Convention of the World Meteorological Organization and the Limited Test Ban Treaty.

Paragraph 73 of the report states:

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.

This measure endorses the principles and guidelines developed by the Committee.

The United States has incorporated the United Nations General Assembly Principles on Remote Sensing and Space Nuclear Power Sources into domestic practice. Additionally, United States domestic policy and regulations for space debris mitigation implement the Space Debris Mitigation Guidelines through the United States Government Orbital Debris Mitigation Standard Practices as well as regulations of the Federal Communications Commission, the Federal Aviation Administration, and Department of Commerce.

Considerations for the Committee on leveraging the work of the Group of Governmental Experts on Transparency and Confidence-building Measures in Outer Space Activities going forward

As the Working Group on the Long-term Sustainability of Outer Space Activities has progressed, it has become increasingly apparent that it could also contribute to the development of transparency and confidence-building measures that would enhance stability. The guidelines that are being developed in the Working Group will help inform discussions on space transparency and confidence-building measures next year at the fifty-eighth session of the Committee. Results from these discussions could also be an important input for a potential joint ad hoc session of the General Assembly's two committees responsible for space security, the First Committee and the Fourth Committee. In this regard, it will be crucial that the secretariats of the First and Fourth Committees and the Office of Outer Space Affairs coordinate closely on preparations for the joint meeting.

Such a joint meeting could also provide an opportunity for Member States to identify opportunities for improved coordination on the implementation of space transparency and confidence-building measures across the United Nations system. In particular, this meeting could explore the role of "whole-of-government" cooperation that spans all sectors of national space activity in the peaceful exploration and use of outer space.

Such a meeting could also serve as an opportunity to consider how a cross-United Nations coordination mechanism could provide a useful platform for the promotion and effective implementation of transparency and confidence-building measures, within existing resources, involving various entities of the United Nations Secretariat and other institutions involved in outer space activities. In this regard, the United States believes that the United Nations

Inter-Agency Meeting on Outer Space Activities (UN-Space), organized by the Office of Outer Space Affairs, should fill this role.

The United States also believes that the United Nations Office for Disarmament Affairs should play an active role in discussions of space transparency and confidence-building measures within this inter-agency mechanism, with the Office for Disarmament Affairs providing expertise and support for implementation of transparency and confidence-building measures recommended by the Group of Governmental Experts on Transparency and Confidence-building Measures in Outer Space Activities that are beyond the current mandates of the Office of Outer Space Affairs, WMO, ITU and other elements of the United Nations system (e.g., exchanges of information on major military outer space expenditures and other national security space activities).

These implementation efforts can be supplemented by outreach efforts by the Office for Outer Space Affairs, the Office for Disarmament Affairs, and the United Nations Institute for Disarmament Research. These outreach efforts can leverage the United Nations Institute for Disarmament Research's extensive experience in addressing the full range of space security and sustainability issues.

In addition to the specific measures described above, the Group of Governmental Experts recommends that as specific unilateral, bilateral, regional, and multilateral transparency and confidence-building measures are agreed to, States should regularly review the implementation of such measures and discuss additional ones that may be necessary (A/68/189, para. 70). The United States believes the Committee could be used for this purpose.
