
Conference on Disarmament

English

Final record of the one thousand five hundred and seventy-sixth plenary meeting

Held via videoconference on Tuesday, 1 June 2021, at 10.05 a.m. Central European Summer Time

President: Mr. Salomon Eheth(Cameroon)



The President: I call to order the 1576th plenary meeting of the Conference on Disarmament. Dear delegates, ladies and gentlemen. Before we proceed with our order of business for today, it is my pleasure to extend a warm welcome to Her Excellency Ms. Anna Jardfelt, Ambassador Extraordinary and Plenipotentiary, Permanent Representative of Sweden to the United Nations Office at Geneva, to the Conference on Disarmament. On behalf of my Government and on behalf of the Conference, I would like to take this opportunity to assure you of our full cooperation and support in your new assignment.

I would now like to turn to the topic of discussion today, a thematic debate on the prevention of an arms race in outer space. I would first like to welcome our panellists. We have Mr. Bassem Hassan of the Permanent Mission of Egypt to the United Nations, Ms. Natália Archinard of the Federal Department of Foreign Affairs of Switzerland, Ms. Laetitia Zarkan of the United Nations Institute for Disarmament Research and Mr. Michael Spies of the United Nations Office for Disarmament Affairs.

I would like first to invite our first panellist for this morning, Mr. Bassem Hassan, but before giving him the floor, let me say a few words about him.

Mr. Bassem Hassan joined the Egyptian Mission to the United Nations in New York in 2017. He is responsible for issues pertaining to disarmament and international security. He has served as Vice-Chair of the First Committee of the General Assembly, Vice-Chair of the Disarmament Commission and Vice-President of the new United Nations Conference to Review Progress Made in the Implementation of the Programme of Action to Prevent, Combat and Eradicate the Illicit Trade in Small Arms and Light Weapons in All Its Aspects. He was also made a member of Group of Governmental Experts on the Prevention of an Arms Race in Outer Space and the Group of Governmental Experts on nuclear disarmament verification. He previously served at the Permanent Mission of Egypt to the United Nations and Other International Organizations in Vienna and Geneva and as the Deputy Head of Mission in Tehran. Mr. Hassan holds many degrees, including a PhD in systems dynamics.

Mr. Hassan, you have the floor.

Mr. Hassan (Egypt): Thank you, Mr. President. First of all, I would like to congratulate Cameroon for assuming the presidency of the Conference on Disarmament. I also wish to thank you for this opportunity to address the Conference on Disarmament on this important agenda item.

Mr. President, I was planning to share a presentation today. I am not sure whether you can see it, but no matter.

Distinguished delegates, I was asked today in my presentation to focus on the topic of possible elements of a legally binding instrument on the prevention of an arms race in outer space. Let me start by addressing the context. There is a long-standing consensus that the prevention of an arms race in outer space is in the interest of all States and that it would contribute to international peace and security. There is also an overwhelming recognition that the existing international legal framework is not sufficient to address the relevant threats, especially with the exponential growth in the level of reliance on outer space technology and the number of outer space objects as well as the increasing number of actors in outer space. However, unfortunately, there are deep divisions regarding the way forward on addressing these threats.

As I am sure most colleagues have heard, experts usually try to group the possible threats in four different scenarios. There is, of course, the space-to-space threat scenario where we are concerned about the possible use of an outer space object as a weapon against another outer space object. The second scenario is space to Earth – that is, when an outer space object is used to inflict damage or to attack a terrestrial target. The third scenario is Earth to space, where the origin of the threat is a terrestrial weapon or a threat to an outer space object. Recently, there have been also discussions about a fourth scenario, which is Earth to Earth, where the origin of the threat is a terrestrial weapon used against a facility or infrastructure that is used to control or command an outer space object.

It is important to lay out the list of threats if we are going to address the possible obligations or the scope of a possible future treaty – and in all four of these threat scenarios

it is also important to recognize the possible distinction between kinetic and non-kinetic means of attack, a distinction that will be returned to later in the discussion.

With the possible threat scenarios laid down, what kind of obligations should be envisaged or what are the possible elements that should be included in a treaty? First and foremost, the most immediate and obvious obligation is the prohibition of the placement of weapons, offensive or defensive, in outer space. If there is such an obligation, the first and second scenarios are, of course, immediately addressed, because now that there are no weapons in outer space, it is difficult to imagine that there will be an attack from an outer space object on another outer space object or from outer space on a terrestrial object.

Of course, there are arguments that any object in outer space or any satellite can be used as a weapon. Nevertheless, several experts question that argument. It is quite difficult to imagine that a satellite or an outer space object that is used for peaceful purposes can be easily converted into a weapon. And, of course, there are several measures that can be taken to ensure that those satellites are of a peaceful nature – for example, prelaunch notifications or prelaunch inspections. You can easily distinguish, according to the technical experts, between an object that is dedicated to peaceful uses and an object that can be used as a weapon or can be converted for use as a weapon. It is as easy, according to some experts, as distinguishing between a battle tank and a sport utility vehicle.

Nevertheless, moving forward, the second main obligation in such a treaty should be the prohibition of the use of force against outer space objects and/or outer space systems. This basically means that the States parties to such a treaty will undertake not to knowingly or intentionally destroy, impair or otherwise disrupt the normal functioning of an outer space object or system.

The negotiators can always choose between two approaches – one of them is just laying down the general obligation as opposed to listing or picking specific threats to outer space objects or systems and making explicit references to anti-satellite missiles and other methods like laser-blinding, jamming or cyberattacks. In my personal view, and many other experts do agree, maybe a more general obligation would suffice, but, of course, these are options for the negotiators to choose from.

The third obligation, which is a common obligation in any disarmament and arms control treaty, is an obligation that nothing in the relevant treaty should be interpreted in such a manner as to hinder or hamper peaceful uses. The treaty may also contain a provision requiring parties to strengthen international cooperation.

The fourth element could be something addressing verification and transparency and confidence-building measures with a view to ensuring that the parties to the treaty are committed to their obligations and are implementing it. We will come to that later, when we discuss the ongoing endeavours and discussions in the context of the United Nations.

Furthermore, it is important to keep in mind in this context that, in any disarmament or arms control treaty, there are usually two main approaches depending on the topic under discussion – one focuses on the prohibition of specific actions or behaviours. The second approach is the prohibition or elimination of specific types of weapons. Sometimes it is also possible to combine the two approaches, depending on the scope of the treaty.

Moving on from here, what are the main endeavours or proposals that have been put forward in the area of preventing an arms race in outer space in the context of the United Nations?

First and foremost, there is the Russian and Chinese proposal that has twice been submitted to the Conference on Disarmament, the first version in 2008 and the second version, an updated one, in 2014. Generally speaking, it is quite a lean and straightforward text. It provides for two main obligations: one is not to place weapons in outer space and the other is not to use force against outer space objects. The text has received support from several groups, such as the Non-Aligned Movement and the Group of 21; nevertheless, it was also criticized by detractors.

If we try to group those criticisms, one of them relates mainly to the fact that, from the point of view of its detractors, the draft Treaty on the Prevention of the Placement of

Weapons in Outer Space, the Threat or Use of Force against Outer Space Objects does not contain sufficient definitions. Basically, the draft Treaty has two definitions, one of an outer space object and the other of an outer space weapon.

Here, of course, there are many very valid arguments about those criticisms of the definitions. As you know, many treaties do not have definitions at all, and they have functioned well. For example, the Non-Proliferation Treaty does not have a definition of what constitutes a nuclear weapon, but it has been considered the cornerstone of non-proliferation and has been quite effective thus far. We have dozens of treaties about countering terrorism but no agreed definition of what constitutes an act of terrorism.

There are also views that there are possible measures to distinguish between a peaceful outer space object or satellite and an object that can be used as a weapon. There are general features that make it easy to distinguish an outer space object that is intended for use as a weapon from a peaceful one, as I mentioned earlier. Therefore, some experts actually question the likelihood or the possibility of using a peaceful satellite in a kamikaze attack against another one. Many experts question whether States are willing to sacrifice the huge investment that they made in developing and launching a satellite just to destroy or damage another satellite. That scenario is not likely, so many experts believe that the definitions contained in the draft are sufficient at this stage.

The second main criticism of the draft Treaty has to do with its failure to provide for a verification regime or system. Again, to many experts, this criticism – or the argument behind it – is not very compelling. First, there is considerable capacity for the development of a reliable verification regime. There are also many disarmament and arms control treaties that do not have a verification regime, and even those that do have a verification regime do not have a perfect regime. There is no such thing as a perfect, airtight verification regime.

It has also been agreed by consensus in the context of the United Nations that verification is not an end in itself, and in my view, one should never underestimate the value of setting the norm itself. This issue, then, can of course be addressed during the negotiations – criticisms of both the definitions and the verification issue can be addressed sufficiently during the negotiations but cannot be taken as a reason in themselves to reject the only text on the table outright.

Later, there were other attempts to address the prevention of an arms race in outer space in the context of the United Nations. First, there was the Group of Governmental Experts established by General Assembly resolution 72/250, a group that I had the privilege of being one of the 25 members of. Under the able leadership of Ambassador Patriota of Brazil, the Group of Governmental Experts was able to produce a comprehensive draft report with no square brackets. The draft report, unfortunately, was not ultimately endorsed because of the objections by one State; nevertheless, that draft tried to combine the several existing approaches, the competing ideas. It was not aiming to impose one of the approaches on the future negotiators but rather trying to lay down the possible elements that negotiators can pick from or combine if they wish. It acknowledged the complementarity of legally binding obligations and transparency and confidence-building measures.

Actually, the draft report has been made available by the African Group in New York. It submitted it to the Disarmament Commission just to make sure that the report does not go unnoticed and can be used as a reference point for future discussions.

The third main ongoing attempt is within the framework of the Disarmament Commission. In 2018, the Commission decided that one of the two items on the agenda for its current cycle should relate to the prevention of an arms race in outer space. It was basically dedicated to a discussion of a previous Group of Governmental Experts report – a 2013 report – and the guidelines contained therein. The discussions relate mainly to the operationalization of the recommendations made in that report, and we have seen many constructive ideas on trying to translate these recommendations into further guidelines, especially on issues like space situational awareness, active debris removal, prelaunch notifications and so on. The discussions are ongoing, and when the Disarmament Commission convenes its next sessions we hope to see some positive outcomes.

Most recently, as you are well aware, the United Kingdom proposed a new draft resolution under the agenda item dedicated to the prevention of an arms race in outer space in the First Committee. The result was the adoption of General Assembly resolution 75/36, entitled “Reducing space threats through norms, rules and principles of responsible behaviours”. The good thing about this resolution is that it recalls the traditional or omnibus resolution on the prevention of an arms race in outer space that is tabled annually by Egypt and Sri Lanka and has an explicit reference to the possibility of having legally binding instruments in this domain.

However, many opponents of this initiative fear or are concerned that the initiative is trying to promote a concept of responsible weaponization of outer space, or that an arms race is fine as long as States act responsibly. Those opponents also worry that this initiative might create a parallel or competing track that undermines the ongoing efforts to reach a legally binding treaty and that the focus of the resolution is mainly on safety considerations, which are mainly addressed under the Committee on the Peaceful Uses of Outer Space in Vienna rather than the First Committee, which is dedicated to security aspects.

Nevertheless, the implementation of this proposal or initiative, which we are watching closely, will make it clear whether these concerns are justified or not, and we hope that there will be complementarity between these different initiatives.

In conclusion, Mr. President, I think it is important for the Conference on Disarmament and the United Nations in general to start addressing the prevention of an arms race in outer space and to consider it a low-hanging fruit. It is not the lack of technical knowledge or technological capabilities that is blocking progress in this domain, but, as many if not the majority of States believe, the lack of political will and the prevailing polarization around this topic. The possible elements of a treaty are well known, and it is up to the negotiators to choose the scope and the approach that they find right. It is always possible to combine different approaches and scopes or to consider a gradual approach to a legally binding treaty to fill the existing gaps in this domain.

It is important to acknowledge and maintain the complementarity between those different approaches, and we think that there is a way, if the time is right, to consolidate all these ongoing efforts, especially under the auspices of the Conference on Disarmament.

I will stop here, Mr. President, and I thank you again for this opportunity.

The President: Thank you, Mr. Hassan, for your pertinent presentation.

Our next panellist is Ms. Natália Archinard of the Federal Department of Foreign Affairs of Switzerland. As I stated, Ms. Archinard works with the Federal Department of Foreign Affairs on space matters. She has been leading the Swiss delegation to the United Nations Committee on the Peaceful Uses of Outer Space for more than a decade and is serving as the Chair of the Committee’s Scientific and Technical Subcommittee for the period 2020–2021.

Ms. Archinard has represented the Swiss Government in multilateral negotiations on space-related initiatives, including the Committee’s Guidelines for the Long-term Sustainability of Outer Space Activities and the draft international code of conduct proposed by European Union. She is a member of the Swiss delegations to the European Space Agency and to First Committee and Fourth Committee of the General Assembly. Ms. Archinard was educated in mathematics at the University of Geneva and obtained a PhD from the Swiss Federal Institute of Technology in Zurich in 2020.

I now give the floor to Ms. Archinard.

Ms. Archinard (Switzerland): Thank you so much, Ambassador, for your kind introduction and for inviting me to brief the Conference on Disarmament on the activities of the Committee on the Peaceful Uses of Outer Space.

I have prepared a presentation which I will try to show with the help of the technical services. I would like to emphasize that I am speaking here as a long-term delegate for Switzerland to the United Nations Committee on the Peaceful Uses of Outer Space and as the current Chair of the Committee’s Scientific and Technical Subcommittee.

This presentation is intended to inform the Conference on Disarmament of the Committee's work related to the safety and the sustainability of outer space activities and is in line with a long-standing tradition of mutual exchanges of information by the two bodies – the Committee and the Conference.

For context, the United Nations Committee on the Peaceful Uses of Outer Space is 16 years old now and is a subsidiary body of the General Assembly, to which it reports in the Fourth Committee. It is mandated to promote international cooperation in the peaceful uses of outer space and to study the legal questions arising from space activities. It has two subcommittees, the Scientific and Technical Subcommittee, which I am currently chairing, and the Legal Subcommittee, which is currently meeting in Vienna in hybrid format.

The Committee has developed the main legally binding international instruments related to space activities. They were developed in the 1960s and 1970s – the list includes the Outer Space Treaty, which is the foundational instrument and which was followed by four further instruments – the Rescue Agreement (for astronauts), the Liability Convention, the Registration Convention (on space objects) and the Moon Agreement. I have to say right away that the Moon Agreement is the least subscribed agreement. It cannot be considered a universal instrument since only 18 States are parties to it. But the Outer Space Treaty is the reference for international space law, and in the first four instruments on my list, the basic principles of international space law are laid down. Here are a few: due regard for the activities of other States, non-interference with the space activities of others, liability and the registration of space objects. International consultations are also very strongly anchored in the Outer Space Treaty.

More recently, the Committee has been working on non-legally binding instruments. And it has indeed developed several soft-law instruments this century, including the resolution on registering space objects, the Space Debris Mitigation Guidelines, the framework for the safe use of nuclear power sources in outer space, which was jointly developed with the International Atomic Energy Agency, and, most recently, the Guidelines for the Long-term Sustainability of Outer Space Activities. In all these instruments, actually, there are elements to reinforce the sustainable use of outer space and the safety of space operations. And I will go into more detail on the last of the four instruments mentioned above.

The Guidelines for the Long-term Sustainability of Outer Space Activities are the fruit of eight years of work by the Committee, specifically the Scientific and Technical Subcommittee. They are a final agreement on 21 guidelines and a preambular text that were adopted by consensus at the Committee – that is important to highlight. I believe the Committee had 92 member States at the time; it now has 95 member States.

The Guidelines are voluntary. They are not legally binding, so that is an important element to remember. They are addressed not only to States but also to all other space actors, including non-governmental space actors. The definition of “sustainability of outer space activities” is quite long. It can be found in paragraph 5 of the preamble to the Guidelines, which is in annex 2 of the Committee's 2019 report. You have the quote in the slide, but to give you an idea of the spirit of the definition, the sustainability of space activities is, for the Committee, the ability to maintain the conduct of space activities indefinitely for present and future generations and in a manner that respects the principle of equitable access to the benefits of space activities.

The overarching objectives of the Guidelines are to preserve the outer space environment for, as noted, current and future generations. The objective is also to avoid causing harm to the safety of space operations. There are a lot of elements which aim at promoting international cooperation in the peaceful uses of outer space, but also in the implementation of the Guidelines themselves.

Here is a quick overview of the different categories into which the Guidelines were divided: they address policy and regulatory aspects of space activities, they address the safety of space operations, as already mentioned, they address international cooperation and capacity-building, as also mentioned, and they address scientific and technical research and development.

Here on this slide, I have highlighted some elements of the Guidelines that I believe are very relevant to the safety and sustainability of space operations, of course, but that also contribute to transparency and confidence-building. Frequency interference is part of it – there is obviously the mandate of the International Telecommunication Union in this respect, but without prejudice to the Union’s mandate, States are invited to avoid harmful radio frequency interference. The registration of space objects appears again and is a very important element for the safety of space operations, but also for the transparency of space activities.

The monitoring of space objects and events and the sharing of information and orbital data are also very important in respect of being aware of the space environment – so-called space situational awareness – which is fundamental to safety in space operations and basically to avoid accidents.

Conjunction assessment is in the same spirit, risk assessment in space, but also for re-entry of space objects; and with respect to the impact of space weather on satellites, this is also promoted through the Guidelines. Space debris mitigation (post-mission disposal) is an important part of ensuring that the use of space remains sustainable, and research into new technical means of managing space debris is also an important part of keeping space usable for the long term.

Here I would like to link to what the previous speaker mentioned: the report of the Group of Governmental Experts on Transparency and Confidence-building Measures in Outer Space Activities, which was finalized in India in 2013. This report – and I will say a little bit about it in my next slide – was a reference which was kept in mind when the Committee developed the Guidelines. On this slide, you see a paragraph taken from the preamble to the Guidelines, which states that the Guidelines duly take into account the relevant recommendations contained in that report.

A few words on this report, as I believe it makes recommendations that are very important for attempts to elaborate transparency and confidence-building measures: it sets out criteria and characteristics for such measures as they relate to space activities and it even proposes transparency and confidence-building measures related to information exchange on space policy, notifications or risk reduction and contact with and visits to space launch sites and facilities. You will see in this report that the recommendations address both the civilian and the military uses of outer space.

It also recommends stronger collaboration or exchanges between the civilian space community and the diplomatic community on the peaceful uses and security of outer space. I have listed here a few of those recommendations. Exchanges among multilateral organizations engaged in developing transparency and confidence-building measures for space – I believe this briefing to the Conference on Disarmament is an example of the exchanges of information that keep other bodies aware of what one is doing. But further recommendations were actually well taken and implemented, and the coordination between the Office for Outer Space Affairs, whose tasks include serving as the secretariat of the Committee, and the Office for Disarmament Affairs has improved over the years since the report was adopted. By the way, the series of events which took place two weeks ago on General Assembly resolution 75/36 was organized jointly by these two United Nations bodies, which I think is very good to see.

In the same vein, the joint meetings of the First Committee and the Fourth Committee of the General Assembly were also recommended by Group of Governmental Experts and took place after the adoption of that report, I think there have been three editions of such meetings.

In conclusion, I would like to emphasize that the work of the Committee, specifically on the Guidelines for the Long-term Sustainability of Outer Space Activities, does contribute to transparency and confidence-building among States and in the end among States and all space actors. It also highlights that information exchange and international collaboration do contribute to transparency in space activities and to the sustainability of the use of outer space. In the end, the sustainability and security of space are two sides of the same coin. And that coin, as I see it, is to ensure that future generations can use space for peaceful purposes, and in this connection, as a takeaway, which I have shown on my last slide, I have found this nice

sentence in the preamble to the Guidelines: “States understand that maintaining exploration and use of outer space for peaceful purposes is a goal to be pursued in the interest of all humankind.” Thank you very much for your attention.

The President: I thank Ms. Archinard for her pertinent and rich presentation.

Our next panellist is Ms. Laetitia Zarkan of the United Nations Institute for Disarmament Research (UNIDIR). Ms. Zarkan is currently working for UNIDIR and is also a doctoral researcher in space law and civil law at the University of Luxembourg. Her primary research areas are legal and political issues related to space safety, security, stability and sustainability. I now give the floor to Ms. Zarkan.

Ms. Zarkan (United Nations Institute for Disarmament Research) (*spoke in French*): Thank you very much, Mr. President. Distinguished delegates, ladies and gentlemen, it is a tremendous honour for me to speak to you, and I thank you, Mr. President, for your kind invitation. My name is Laetitia Cesari Zarkan. I am a space security researcher for the United Nations Institute for Disarmament Research (UNIDIR). I should point out that this statement is my personal opinion and does not necessarily reflect that of UNIDIR or the United Nations.

As mentioned in previous statements, space activities are now numerous. In recent years, we have witnessed a significant increase in the number of launches and, in particular, the number of objects put into orbit. Our dependence on space systems has grown over the years, not only for economic and scientific activity but also for military and security purposes.

Somewhat oddly, the law has outpaced technological progress in space. The launch of the Sputnik mission in 1957 played a part in triggering not only the space race but also the creation of a new type of law. Within a decade, no fewer than five major multilateral treaties had been adopted. While these treaties have contributed to safety and security in space and on Earth thus far, technological developments and the growing risk of conflict in space now appear to be leaving the legislative and policy frameworks behind. Today, almost every country in the world depends on space systems. For this reason, it is important to look at how to improve relations among space actors.

Threats to space systems include the destruction of satellites by missiles. The collective consequences of this type of anti-satellite operations are one of the most difficult issues to manage in this area. UNIDIR Space Dossier 2 contains three sets of guidelines if this type of operation were ever to occur – namely, prevent the creation of debris, minimize this risk by carrying out such operations in low orbit and, in all cases, notify others of such activities to avoid misperceptions or misinterpretations.

There are threats of other types, such as communication interference operations: radio jamming, spoofing, cyberattacks and blinding observation satellites using lasers. Moreover, some threats may come from other space systems. In addition to debris, we are also witnessing experiments with rendezvous proximity vehicles. These technologies exist, and co-orbital operations of this kind will increase in number in the future. We are seeing fuzzy or grey areas appear, which are creating a great deal of uncertainty. Here, too, operations of this type are likely to lead to misperception or misinterpretation – hence the importance of communication.

Underlying this issue are multifaceted challenges in terms of political stability, coexistence and security in space, as well as the development of space activity. While the 1967 Treaty on the Non-Proliferation of Nuclear Weapons is the cornerstone of our system, issues relating to space security have changed. In the early 1980s, the Conference on Disarmament and the First Committee began discussions on the prevention of an arms race in outer space. In 1985, the Conference on Disarmament set up an ad hoc committee to identify and consider issues relating to the arms race in outer space, including the legal protection of satellites, nuclear energy systems in space and various confidence-building measures. This committee did not have a negotiating mandate, but it met every year until 1994. The driving force behind this initiative was the deployment in space not only of weapons of mass destruction but also of conventional weapons.

After years of discussions, the proposal for the draft Treaty on Prevention of the Placement of Weapons in Outer Space and of the Threat or Use of Force against Outer Space Objects was the main initiative in this field, the most recent version of which was presented

to the Conference on Disarmament by the People's Republic of China and the Russian Federation. On 12 April, to mark the sixtieth anniversary of Yuri Gagarin's space flight, the Russian Minister for Foreign Affairs signalled his intention to continue negotiations with a view to developing an internationally binding instrument based on the draft Treaty.

Other space security initiatives have been planned in parallel with the draft, such as the draft International Code of Conduct for Outer Space Activities on which the European Union began work in 2008. The most recent initiative is General Assembly resolution 75/36, entitled "Reducing space threats through norms, rules and principles of responsible behaviours", adopted in December 2020. It uses the behavioural framework to initiate discussions in response to States' concerns and to start a process that will make it possible to identify shared concerns. Documents prepared by States, entities such as UNIDIR and the Red Cross and specialized non-governmental organizations are available on the Office for Disarmament Affairs website.

Various United Nations-mandated efforts over the past thirty years are another facet of this work. The Group of Governmental Experts was established to design transparency and confidence-building measures in space. These discussions culminated in a set of voluntary measures adopted by the General Assembly in 2013. Despite all the measures for verification and monitoring in outer space, telescopes or inspections do nothing to change the fact that space objects intended for perfectly legitimate civilian purposes may also be used, once in place, to disrupt or destroy other space objects. It is not their features that change, but rather their function and how they are used. A satellite equipped with a grappling arm or harpoon to remove space debris may also be used to divert a military communications satellite, meaning that there is quite a fine line between a perfectly legitimate civilian capability and a military one. Furthermore, as clearly reflected in the commentary published on the UNIDIR website on the notions of security and safety in the space context, measures to protect a satellite from the risk of an accident or external threats are not wholly reliable. We cannot shield or protect a satellite to make it indestructible.

In Space Dossier 5, UNIDIR suggests further consideration of the objectives of a debate on the prevention of an arms race in outer space in order to advance the discussions. It should be noted that in one of the recent versions of the General Assembly resolution on the prevention of an arms race in outer space, the stated objectives are to avert a grave danger for international peace and security and to ensure that outer space continues to be used in accordance with international law and treaties. This wording gives policymakers the latitude necessary to design measures without giving any indication as to how to overcome the political obstacles associated with them. As suggested in Space Dossier 5, short-term objectives should be established to determine precisely what the most sensitive aspects of an arms race in outer space – a military competition that could destabilize all activity – would be. Policymakers could therefore concentrate on specific risks and how to reduce them by encouraging spacefaring nations to cooperate. Such a discussion about the impact and risks of new strategic technologies could foster better mutual understanding between countries and reduce the chances of escalation.

It is interesting to look at the traditional approach to disarmament and arms control diplomacy, where there is a tendency to consider objects or capabilities and introduce qualitative and quantitative checks on systems to reduce the need for competition. This is not the only approach that can be taken. Another way of considering factors in the arms race is to observe the behaviour or actions that could heighten tensions among the parties rather than looking at the adversary's capabilities and attempting to match or neutralize them. In space, the stakes are very high in part because of the nature of the space environment and in part because of the potential consequences of a miscalculation – objects are out of reach once launched, after all. Without more transparency regarding space objects and their purposes, it will be difficult to change perceptions of the threats that these co-orbital devices or anti-satellite tests could pose.

In conclusion, discussions have shown that thinking about the future of the safety and security of space operations is an absolute necessity. This is what UNIDIR and in particular my colleague Almudena Azcárate Ortega, a space security researcher, are working on at the moment. The aim is to help ensure peaceful relations between States in the field of space and to do away with potential causes of misunderstanding or miscommunication. Thank you.

The President (*spoke in French*): I thank Ms. Zarkan for this rich and lucid presentation.

(*spoke in English*)

Our last panellist for today is Mr. Michael Spies of the Office for Disarmament Affairs (UNODA). Mr. Spies serves as coordinator of the Science, Technology and International Security Unit of the Office of the High Representative for Disarmament Affairs. He joined the United Nations in 2009 and worked in the Weapons of Mass Destruction Branch until 2014.

Before joining the United Nations, Mr. Spies served as editor of *The Arms Control Reporter*, a journal published by the Institute for Defense and Disarmament Studies. He also worked for various other non-governmental organizations, including the Acronym Institute for Disarmament Diplomacy, the Lawyers Committee on Nuclear Policy and the Los Alamos Study Group. Sir, you have the floor.

Mr. Spies (Office for Disarmament Affairs): Good morning, Mr. President. I would like to express my appreciation to the delegation of Cameroon for inviting me to deliver a presentation at this plenary meeting. I intend to take this opportunity to provide you with a preview and overview of the forthcoming report of the Secretary-General pursuant to General Assembly resolution 75/36 on reducing space threats through norms, rules and principles of responsible behaviours. That resolution requested the Secretary-General to seek the views of Member States and to prepare a substantive report on issues covering three areas.

In the time available, I am not going to be able to go into a lot of detail, but I will touch upon the major topics reflected across the various submissions.

We have received a total of 28 replies from Member States and one from a regional organization. In addition, we received views from two international entities and from seven non-governmental organizations.

The substantive elements of the report will include a background section reflecting views on overarching concepts and on the benefits of the uses of outer space.

Many submissions refer to space systems, so, where used, this term refers to the space segment, including the satellite and launch vehicle, the ground segment, including command and control, and the data links between the two.

In terms of benefits, outer space is characterized as increasingly essential to daily life, and benefits of its use are applicable to all States. Many thus regard outer space as a global commons.

The specific benefits include achievement of the Sustainable Development Goals, agriculture, environmental and disaster monitoring, positioning, navigation and timing, telecommunications, education and science. Accordingly, many regard satellites in particular as critical infrastructure. Many also pointed to various uses of outer space for national and international peace and security. A distinction was made in this regard between general military uses of outer space and weaponization.

On the first of the substantive areas requested in the resolution: identification of existing and potential threats and security risks to space systems, including those arising from actions, activities or systems in outer space or on Earth. In the first instance, a distinction is made between natural hazards, such as space weather, and human-origin threats and security risks, which is the focus of most submissions.

The scope of threats and security risks includes systems or acts that interfere with, disrupt, deny, degrade, damage or destroy space systems or their normal functioning. These cover four scenarios: ground to space, space to space, ground to ground and space to ground. A general distinction is also made between acts with temporary versus irreversible effects on these systems. Particular concern is prompted by acts that can generate long-lasting space debris. Threats also include the use of space objects to attack terrestrial objects.

In our preliminary work, we have grouped the sources of threats and security risks into three categories. In the first category are general sources. These include the increasing

risk of accidental collisions, unintentional radio frequency interference and military doctrines and policies that contemplate the conduct of warfare in or from space.

In the second category are systems and capabilities. Examples of these include direct-ascent anti-satellite weapons, space-based missile defence interceptors, co-orbital weapons that employ physical means, dual-use active space debris removal, directed-energy weapons, electronic means of warfare, cyberattacks, nuclear weapons, stealthy space objects and nuclear power sources.

In the third area are operational activities including close approaches without notification, physical attacks against ground stations and hybrid military operations in which disruption of space services is a part.

The second area of the report is on the characterization of actions and activities that could be considered responsible, irresponsible or threatening and their potential impact on international security. While submissions provide a robust set of examples for responsible and irresponsible behaviours, it should be noted that some also express some concern about the possibility for subjective judgment in attempting to distinguish between the two. Nonetheless, there is quite a robust set of examples that were provided across the submissions.

In terms of responsible behaviour, these examples included avoiding surprising or provocative actions, communicating in advance of high-risk operations, refraining from deliberate and non-consensual interference, refraining from damaging or destroying space systems, committing not to place weapons in outer space, sharing situational awareness information, registering space objects, implementing existing treaties and agreements and continuing international efforts to build mutual confidence.

A considerably larger amount of attention was devoted to describing irresponsible or threatening actions and activities. Examples of these include development, testing, deployment, or use of various anti-satellite weapons or the use of a space object to attack a terrestrial target, operations that interfere with space systems, including military and situational awareness systems, forcing others to avoid collisions or failing to undertake a necessary anti-collision manoeuvre, irregular manoeuvres in the geostationary belt, uncoordinated activities – including the release of projectiles – and rendezvous and proximity operations that are non-transparent, non-consensual, non-cooperative, dangerous, hostile, make physical contact or that continue after a request to cease has been made. The fourth area of irresponsible behaviour includes intentional acts of disruption that affect satellite command and control services required for public safety and security, and early warning and nuclear command and control.

The third area of the report is on ideas for the further development and implementation of norms, rules and principles of responsible behaviours and the reduction of the risks of misunderstanding and miscalculations with respect to outer space. Many expressed support for a behaviour-based approach; it was considered that such an approach could lead to a legal instrument or be pursued in tandem with one. There was also support for continuing the traditional approach to preventing an arms race in outer space.

On the negotiation of a legal instrument per se, many explicitly supported this, although it was also clarified that any such instrument should be effective and comprehensive. Various views were reflected in the submissions on the draft Treaty on the Prevention of the Placement of Weapons in Outer Space and on the initiative for political commitments on the issue “no first placement of weapons in outer space”.

In terms of specific elements for norms, rules and principles, the submissions reflect a very rich menu of items that can form the basis for an instrument. The elements fall into the following categories: affirming the applicability of international law; supporting adherence to existing instruments; debris mitigation; prohibitions and limits on destructive or hostile acts; prohibitions and limits on other acts, including acts involving certain capabilities; sharing information on practice on cyberthreats; restrictions on various forms of intentional electromagnetic interference; rules and guidelines for rendezvous and proximity operations; standards for other aspects of operations such as minimum safe distance guidelines; information exchanges on national space policies and military expenditures; information exchanges on space objects and activities; risk reduction notifications; policy

and operational communication channels; and increased cooperation in situational awareness and the sharing of data.

In terms of the process for the development of norms, rules and principles, submissions generally reaffirmed the central role of the United Nations. Preferences were expressed for either an open-ended working group or a group of governmental experts. It was also considered that any process should be inclusive, provide for the participation of multiple stakeholders, including the private sector, and ensure the full, meaningful and equal participation of women.

This is my preliminary preview and overview of the report of the Secretary-General. The Office for Disarmament Affairs and the Office for Outer Space Affairs are continuing to work together on collecting and organizing these submissions and we will be working on producing the report, which is to be issued in advance of the forthcoming session of the General Assembly. Thank you for your attention.

The President: Thank you, Mr. Spies, for your rich and pertinent presentation.

The floor is now open. I would now like to invite delegations to inform the Conference on Disarmament of their national space security policies, strategies or doctrines on a voluntary basis, in accordance with General Assembly resolution 75/36. I would also like to note that we also have an afternoon meeting available to us.

First, let me give the floor to Kenya on behalf of the Group of 21. Madam Anne Keah, you have the floor.

Ms. Keah (Kenya): Thank you. At the outset, please allow me to convey the apologies of Ambassador Cleopa Mailu, who could not be here this morning due to other official engagements.

As this is the first time that the delegation of Kenya takes the floor on behalf of the Group of 21, allow me to congratulate you, Mr. President, on your assumption as President of the Conference on Disarmament. I assure you of the full support and cooperation of the Group of 21. The Group of 21 appreciates all the insightful presentations that have been made by the speakers this morning. I have the honour to deliver the following statement on behalf of the Group of 21 on the prevention of an arms race in outer space.

The Group of 21 believes that space technology has indeed become an indispensable and integral part of our daily lives. Never before have information, communication, banking, economic transactions, navigation and even political and strategic decision-making been so dependent on space-based technologies, which are themselves witnessing rapid growth.

The Group reiterates that outer space and other celestial bodies are the common heritage of humankind and must be used and explored for the benefit and in the interest of all humankind in a spirit of cooperation. The Group reaffirms that the exploration and use of outer space and other celestial bodies shall be for peaceful purposes only and shall be carried out for the benefit and in the interest of all countries, irrespective of their degree of economic or scientific development.

The Group stresses that the growing use of outer space requires all States to take actions to ensure greater transparency, confidence-building measures and better information. The Group believes that all States with major space capabilities have a special responsibility to contribute actively to the objective of the peaceful use of outer space and of the prevention of an arms race in outer space. All States should refrain from actions contrary to that objective and to the relevant existing treaties in the interest of maintaining international peace and security and promoting international cooperation.

The Group recognizes that the prevention of an arms race in outer space would avert a grave danger for international peace and security. The Group emphasizes the necessity of undertaking further measures with appropriate and effective verification provisions to prevent an arms race in outer space in all its aspects.

The Group emphasizes the importance and urgency of preventing an arms race in outer space and the paramount importance of strict compliance with the existing legal regime concerning the use of outer space. In this regard, the Group is deeply concerned over the

increasing threat of weaponization of outer space, including the negative implications of the development and deployment of anti-ballistic-missile defence systems and the pursuit of advanced military technologies capable of being deployed in outer space, which have, inter alia, contributed to the further weakening of an international climate conducive to the promotion of disarmament and the strengthening of international security.

The Group stresses that all States bear a responsibility to refrain from activities that could jeopardize the collective goal of preserving outer space free from weapons of mass destruction and all other forms of weaponization so as to ensure that its benefits are available to all.

The Group considers that the multilateral disarmament agreements provide mechanisms for States parties to consult one another and cooperate in solving any problems which may arise in relation to the objective of, or in the application of, the provisions of the agreements and that such consultations and cooperation may also be undertaken through appropriate international procedures within the framework of the United Nations and in accordance with the Charter of the United Nations.

The prevention of an arms race in outer space has assumed greater urgency because of legitimate concerns that existing legal instruments are inadequate to deter further militarization of outer space or prevent its weaponization. The Group further reaffirms its recognition that the legal regime applicable to outer space does not in and of itself guarantee the prevention of an arms race in outer space. For that purpose, the Group stresses the need to consolidate and reinforce that regime and enhance its effectiveness.

In this regard, the Group reaffirms that the Conference on Disarmament is the single multilateral disarmament negotiating forum of the international community, which has the primary role in conducting substantive negotiations on priority issues of disarmament. The Group therefore believes that the Conference on Disarmament should start negotiations on matters related to the prevention of an arms race in outer space without delay.

While welcoming the adoption by the General Assembly of resolution 75/35, entitled "Prevention of an arms race in outer space", the Group recalls that the resolution made the following observations with regard to the Conference on Disarmament: (1) the Conference on Disarmament has the primary role in the negotiation of a multilateral agreement or agreements on the prevention of an arms race in outer space in all its aspects; and (2) the Conference on Disarmament should establish a working group under its agenda item entitled "Prevention of an arms race in outer space" as early as possible during its 2021 session.

The Group of 21 takes note of the completion of the work of the Group of Governmental Experts and the adoption of a study on outer space transparency and confidence-building measures, as requested by the General Assembly in resolution 65/68, on transparency and confidence-building measures in outer space activities, which was adopted by consensus at the sixty-eighth session of the General Assembly. The Group of 21, while stressing the priority of negotiating legally binding instruments for reinforcing the international legal regime on outer space, recognizes that global and inclusive transparency and confidence-building measures, reached through broad international consultations, could be important complementary measures. The Group recognizes the value of transparency and confidence-building measures, including a non-legally binding code of conduct, in promoting trust among States. However, such voluntary measures cannot be a substitute for a legally binding treaty on the prevention of an arms race in outer space.

The Group welcomes the updated text of the draft Treaty on the Prevention of the Placement of Weapons in Outer Space, the Threat or Use of Force against Outer Space Objects, which, in June 2014, was submitted jointly to the Conference on Disarmament by the Russian Federation and China. This initiative is a constructive contribution to the work of the Conference and is a good basis for discussions towards adopting an international binding instrument.

The Group welcomes the adoption of resolution 75/37, entitled "No first placement of weapons in outer space", by the General Assembly on 16 December 2020.

The Group also welcomes the adoption by the General Assembly, on 24 December 2017, of resolution 72/250, entitled "Further practical measures for the prevention of an arms

race in outer space". In this resolution, the Conference on Disarmament was urged to immediately commence negotiations on an international legally binding instrument on the prevention of an arms race in outer space, including, inter alia, on the prevention of the placement of weapons in outer space, and the follow-up resolution, General Assembly resolution 74/34 of 18 December 2019, which welcomes the deliberations held in 2018 and 2019 by the Group of Governmental Experts on Further Practical Measures for the Prevention of an Arms Race in Outer Space, a group that is tasked with considering and making recommendations on substantial elements of an international legally binding instrument on the prevention of an arms race in outer space, including, inter alia, on the prevention of the placement of weapons in outer space, and emphasizes that the work of the Group of Governmental Experts has constituted an important contribution to international efforts to conclude the above-mentioned international legally binding instrument. The Group of 21 appreciates the work carried out by the Group of Governmental Experts and regrets that it could not reach consensus on its final report.

The Group of 21 takes note of the substantive and interactive informal discussions on the prevention of an arms race in outer space held in the Conference on Disarmament from 11 to 13 June 2014 (pursuant to the schedule of activities of the 2014 session contained in document CD/1978), on 13 and 20 August 2015 (pursuant to the schedule of activities of the 2015 session contained in document CD/2021), from 14 to 16 June 2017 (under the working group on the "way ahead" established by the decision contained in CD/2090) and in 2018 in subsidiary body 3 (pursuant to the decisions contained in documents CD/2119 and CD/2126).

I thank you, Mr. President.

The President: Thank you, Madam.

(spoke in French)

I now give the floor to Mr. Fetz of the delegation of Canada.

Mr. Fetz (Canada) *(spoke in French)*: Mr. President, dear colleagues. First of all, I would like to thank you, Mr. President, for organizing this meeting and to thank the experts for their interesting presentations. I would also like to welcome the new Ambassador of Sweden.

Barely a year and a half has passed since the emergence of a major challenge that, overnight, changed the daily lives of people the world over. Evidence has shown how essential space-based services are if the international community is to fight the pandemic, to ensure that we are able to communicate and meet virtually and to deploy reconstruction efforts. We have also seen the fragility of these space systems in the face of various threats and grasped why it is so important for all nations to keep space a peaceful environment.

Canada is convinced that in order to preserve the peaceful use of outer space, governance must be strengthened and we must work together to establish norms of responsible behaviour. To support this vision, Canada welcomed General Assembly resolution 75/36 on reducing space threats through norms, rules and principles of responsible behaviours and the opportunity to submit views in our national contribution.

It is in all our interests to preserve security in space. Canada encourages open, transparent and constructive dialogue in the Conference on Disarmament so as to create the atmosphere of trust necessary to enhancing international standards for space security. We recognize the important role that the Conference can play in this regard by striving for consensus on norms or a code of conduct to strengthen international peace and security. Canada emphasizes the urgent need for all nations to work to reinforce space security and ease tensions. The longer it takes to develop the "rules of the road" for space, the more dangers will appear and the more difficult it will be to deal with them.

New and unforeseen threats are continually emerging as space becomes busier and technology advances rapidly. While we believe that military use is not incompatible with the peaceful exploration and use of space, Canada is resolved to prevent an arms race in space and ensure that it does not become a place of conflict. As risk and uncertainty increase in space, it becomes more difficult to take advantage of the many social and economic benefits

it provides. However, the reverse is also true, which is why we believe it is time to make a concerted effort to reach an agreement on norms of responsible behaviour in space.

(spoke in English)

The adoption of General Assembly resolution 75/36 is an important step forward in reinvigorating the conversation. Norms that build transparency and trust can strengthen existing international standards governing outer space. Meanwhile, agreed-upon definitions of responsible and threatening behaviours help the world evaluate the actions of space actors and hold violators more accountable. Promoting inclusivity, transparency and trust in these principles will be key to preventing conflict in space. In support of this, Canada encourages all Conference on Disarmament States – especially smaller, non-spacefaring and developing nations – to share their perspectives on the resolution and how it fits into their vision for a peaceful, sustainable future in outer space. The development of norms that are universally agreed upon may create momentum for more ambitious steps, including the eventual possibility of a comprehensive, verifiable and legally binding regime.

As part of our national submission, Canada presented behaviours that promote the safety, security and sustainability of the space environment as responsible, as well as those that reduce misperceptions and miscalculations. For instance, the timely exchange of information in order to reduce adverse impacts to space operations. In contrast, we suggested irresponsible and possibly threatening behaviour as any action that leads to damage to the space environment and/or space systems, deliberate interference with space assets, and those that negatively impact the safety and security of people or property. To mitigate threats and security risks, we suggest a variety of opportunities to make progress immediately, including full adherence to existing treaties and guidelines, and continued work on transparency and confidence-building measures. Canada also encourages future conversations to be inclusive of all stakeholders to allow for a diversity of perspectives to be considered.

In sum, Canada believes that developing norms and principles of responsible behaviour will provide a more secure and stable space environment for the benefit of all. It is in every State's interest to develop a shared understanding of what actions can be destabilizing and lead to increased tensions in space and, consequently, on Earth. Thank you, Mr. President.

The President *(spoke in French)*: I thank the delegation of Canada.

(spoke in English)

I now give the floor to Ambassador Anna Jardfelt of Sweden.

Ms. Jardfelt (Sweden): Thank you, Mr. President, for giving me the floor, and thanks also to the panellists for interesting presentations.

Since this is the first time I take the floor, let me assure you of my delegation's support and congratulate you on your election as Chair of the Conference on Disarmament. Let me also thank you for your warm words of welcome. I arrived in Geneva last year after spending three years as Ambassador in Nairobi. Before Kenya, I mainly focused on security policy issues, and I have spent a large part of my career in Brussels. I have had the pleasure of meeting many of you virtually, but of course I also look forward to the day when we can meet in person.

And now let me turn to today's topic and the agenda item "Prevention of an arms race in outer space". In recent years, we have seen great advances in outer space. Space services and technology are now drivers of socioeconomic development and scientific progress. They also serve as important tools to tackle many of the major global challenges, such as climate change and the achievement of the Sustainable Development Goals.

As our reliance on space-based infrastructure and services grows, we need to make sure that we safeguard and protect the space environment for future generations. Together, we must prevent outer space from becoming an arena for conflict and an arms race.

This – the importance of space for our development on Earth, our increased reliance on space technology, as well as the need for multilateral efforts to promote safety, security and sustainability and to prevent an arms race in outer space – is a point of departure both for

the Swedish National Space Strategy that was adopted by my Government three years ago and for our recent national submission in response to General Assembly resolution 75/36, initiated by the United Kingdom.

Sweden sees a clear need for norms, rules and principles fostering responsible behaviours in space and reducing threats. We have made important progress in the Committee on Peaceful Uses of Outer Space, with the adoption of guidelines to strengthen the sustainable use of space, but we also need progress on the security side, in the appropriate forums.

We believe that, currently, voluntary measures constitute the best way forward, but we do not exclude that such steps can pave the way for future legally binding international measures. Moreover, let me stress that any non-binding norms of responsible behaviour should be in accordance with international law and existing multilateral space principles.

So, what are the threats and risks that we perceive in space and what kinds of norm should be developed? In the Swedish national submission in reply to General Assembly resolution 75/36, we highlight three areas where we see need for multilateral norms: first, norms against destruction of space objects and similar deliberate actions that create space debris or in other ways have a strong negative impact on the space environment and other space systems, including kinetic anti-satellite weapons tests; second, norms regarding rendezvous and proximity operations – for example, norms around transparency, communication and consent; and, third, norms regarding other, mainly non-kinetic, threats, such as cyberthreats, against space systems that may damage vital functions of a satellite, disrupt space-based services or in other ways jeopardize the safety of people and goods.

Transparency and confidence-building measures are key and could also be included in discussions about norms of responsible behaviour.

Sweden has been an actor in space for more than fifty years. We have a capable space industry, cutting-edge research and the space centre Esrange, with more than 600 successful launches of sounding rockets, in northern Sweden.

Our new, recently adopted space strategy constitutes a platform for Sweden's long-term work on space. It underscores the benefits of space for a broad range of fields such as research and implementing Agenda 2030, and stresses the need to integrate foreign policy, security and defence perspectives into space activities. It considers space a global commons and underlines the importance of international cooperation to ensuring the long-term sustainability of space activities and of preventing conflict and an arms race in space.

This strategy is now being implemented. To mention some examples, in October 2020, the Government inaugurated a test-bed facility at the Esrange Space Center, where rocket engines and reusable space technology can be developed and tested. The Government is continuing to invest in Esrange with the aim of developing a capacity to launch small satellites into orbit.

In 2020, my Government also started a national inquiry with the task to propose a modernized national space law. It will present its results this autumn. And with that, I conclude my statement and look forward to the continued discussion. I thank you.

The President: Thank you, Ambassador Jardfelt. I now give the floor to Ambassador Robert Wood of the United States of America.

Mr. Wood (United States of America): Thank you, Mr. President. I also wish to thank the panellists for their very informative presentations.

Mr. President, colleagues, it is a pleasure to have the opportunity to speak once again on this important topic. All countries have a shared stake in addressing threats and preventing conflict from extending into outer space, as space-based capabilities are essential to our respective countries' economies and societies. Whether it is weather reports for our farmers, communications for staying in touch with loved ones around the world or helping us navigate the world in which we live, space is an integral part of our daily lives.

Since the 1980s, this body has had the prevention of an arms race in outer space on its agenda. And since that time, the approach of the United States to the topic has been consistent: we will consider proposals for space arms control if they are equitable, effectively

verifiable and enhance the national security of the United States and our allies. While no proposals meeting such criteria have been introduced into this body thus far, we nevertheless remain open to their consideration.

The two iterations of the draft Treaty on the Prevention of the Placement of Weapons in Outer Space that have been tabled in this body most certainly do not meet such criteria. As we have explained in detail many times, the draft still retains fundamental flaws, including a lack of clear definitions and effective verification mechanisms, which have not been remedied and which are significant challenges for any space arms control proposal. For countries that are interested in further examining the flaws of the proposals for the draft Treaty, we are happy to provide copies of the analyses we have submitted over the years.

Given that dismal track record and the fact that any negotiations on a legally binding instrument would be protracted and outpaced by technological advances, we believe it would be more productive for the international community to develop norms of responsible behaviour to address the increasing threats which all of our Governments now face in the outer space domain. As our national submission to the Secretary-General in response to General Assembly resolution 75/36 noted, space is not only a naturally hazardous environment but has also become increasingly congested, contested and competitive.

Space assets face many threats, both natural and human-made. Natural threats to satellites include solar activity, radiation and natural orbital debris, while human-made threats include debris from satellite operations, radio frequency interference, malicious cyberactivity and anti-satellite weapons such as directed-energy systems or direct-ascent missiles.

Some States are developing, operationalizing and stockpiling a variety of anti-satellite weapons that could be used to, or have the potential to, deny, disrupt, degrade or destroy civil, commercial or national security space capabilities and services. Some of these weapons could be used to deny or disrupt space services temporarily, while others are designed to permanently degrade or destroy satellites. The United States has significant concerns about the serious danger posed by any destructive anti-satellite test that creates persistent debris, a threat which we discuss in our national submission. Such an action would be extremely irresponsible and should draw condemnation from the entire international community.

Some of these threats are unfortunately not hypothetical. Indeed, the two countries that authored the draft Treaty have turned space into a warfighting domain. The People's Republic of China continues to field new destructive and non-destructive ground- and space-based anti-satellite weapons. In fact, the People's Republic of China has already fielded ground-based anti-satellite missiles intended to destroy satellites in low Earth orbit and ground-based anti-satellite lasers probably intended to blind or damage sensitive space-based optical sensors on low Earth orbit satellites. Russia, for its part, continues to field ground-based anti-satellite missiles intended to destroy satellites in low Earth orbit and ground-based anti-satellite lasers probably intended to blind or damage sensitive space-based optical sensors on low Earth orbit satellites. Russia tested one of its ground-based anti-satellite missiles in December 2020. It is notable that Russia's submission to the United Nations Secretary-General states that Member States should commit themselves "not to destroy, damage, disturb the normal functioning or change the flight trajectory of space objects of other States".

The rapid evolution of such threats requires urgent and pragmatic steps if we are to maintain the safety, security and stability of the outer space environment. For the United States, such pragmatic steps will be guided by our National Space Policy, which directs us to "lead the enhancement of safety, stability, security and long-term sustainability in space by promoting a framework for responsible behaviour in outer space, including the pursuit and effective implementation of best practices, standards, and norms of behaviour". These efforts are fully in keeping with President Biden's Interim National Security Strategic Guidance, which affirms that the United States "will lead in promoting shared norms and forge new agreements", including with respect to outer space.

It is in that light that we note our support for proposals such as General Assembly resolution 75/36 on reducing space threats through norms, rules and principles of responsible behaviours, which the United States co-sponsored. This resolution is focused on pragmatic,

implementable ways to enhance responsible behaviour in outer space. This resolution encouraged Member States to study existing and potential threats and security risks to space systems; characterize actions and activities that could be considered responsible, irresponsible or threatening; and share their ideas on the further development and implementation of norms, rules, and principles of responsible behaviours and on the reduction of the risks of misunderstanding and miscalculations with respect to outer space. I understand that dozens of submissions were received from Member States, along with other entities, and I am looking forward to reviewing the report from the Secretary-General later this year.

For those who have not already seen the United States national submission, my team would be happy to provide your Government with a copy. In short, the United States national submission provided a thorough overview of existing and potential threats and security risks to space systems, information on categories of behaviours, efforts or measures that could be considered during further development and implementation of norms, rules and principles of responsible behaviours, and thoughts on norms, rules and principles of responsible behaviours with respect to outer space.

With regard to the last point, it is our position that norms, rules and principles of responsible behaviours with respect to outer space can reduce risks to international peace, security and stability, including by playing an important role in increasing predictability, enhancing operational safety and reducing risks of misperceptions, thus contributing to the prevention of conflict.

A focus on voluntary, non-legally binding norms of responsible behaviour has multiple advantages, including the ability to adapt quickly to changing circumstances or technologies (and to avoid the problem of spending years negotiating legally binding instruments that may be outpaced by technological developments), to explore novel uses of space and to include the perspectives of the civil and commercial operators who are increasingly present and active in the space domain.

Member States' ongoing initiatives to seek mutual understanding of what constitutes threats in space, paired with concepts for responsible behaviour, are an important first step in addressing potential mistrust and misunderstandings arising among States. Indeed, coming to such a common understanding with respect to outer space is a foundational effort, which could support and complement future legally binding efforts that command support from all Member States.

The United States seeks to partner in an inclusive manner with all Member States on such efforts, and we believe that all Member States have a stake – and should have a voice – in the development of such norms. Thank you, Mr. President.

The President: Thank you, Ambassador Wood. The next speaker on my list is Ambassador Gianfranco Incarnato of Italy. Ambassador, you have the floor.

Mr. Incarnato (Italy): Mr. President, thank you for giving me the floor. At the outset, and since this is my delegation's first time taking the floor under your presidency, let me congratulate you on your assumption of your responsibility. Please be assured of my delegation's full support and cooperation.

I wish to thank today's panellists for their presentations, which give us many insights and feed into our work on an agenda item that is still highly relevant to the mandate of the Conference on Disarmament. I believe that what clearly emerges is the affirmation of a new space paradigm accompanied by profound and rapid technological development.

This makes space an increasingly complex setting in which a commercial race is introducing a new phase of competition between States. Depending on the area of space in which activities take place, security in space is gradually becoming more linked to economic and social stability on Earth and increasingly critical to ensuring that future space exploration and distribution activities are conducted in the most balanced way possible.

Working on disarmament and security, we have the great responsibility of ensuring the proper framework for these developments. Italy is firmly committed both at the national

and at the international level, because we believe that a comprehensive and effective international regulatory environment should be elaborated and put in place.

I do not want to lose focus and I am aware that General Assembly resolution 75/36 invites us to inform this body about our national space security policies, strategies or doctrines. In July 2019, a national security strategy for space was approved in Rome. The document is publicly available, and it is my pleasure to inform the Conference of its main aspects.

The global space sector is undergoing profound changes, with direct consequences for the sustainability of the space environment. Security from space and of space is therefore no longer a purely military and national motion, but rather a multisectoral and global issue.

In the last fifty years, Italy has developed space capabilities in the field of telecommunications and Earth observation. Moreover, at the European level, we actively contribute to the development and implementation of important programmes and scientific missions. Our national security strategy, then, aims at strengthening and protecting national public and private space infrastructure and it serves as a reference for institutional, industrial, scientific and commercial organizations in developing their plans, scheduled acquisitions and operations.

The strategic objectives that our strategy pursues through the involvement of all the institutions responsible for State security and defence are essentially five: (a) to ensure the safety and security of space infrastructures, regarded as enablers of the national infrastructure as a whole, (b) to safeguard national security, including by ensuring access to and use of national security capabilities in any given situation, (c) to strengthen and protect the institutional, industrial and scientific sectors, also with a view to protecting national classified information, (d) to promote a space governance capable of ensuring sustainable safe and secure space operations at the international level and (e) to ensure that the development of private initiatives in the space sector is consistent with the country's overriding interests.

Having these five objectives in mind, Italy implements its National Security Strategy for Space through the following strategic lines of action of an operational procedural and legal nature. They can be summarized in the following four points: (a) strengthening and protecting national space capabilities, (b), protection and supervision of the development of industrial and scientific activities and protection of classified information, (c) international cooperation and promotion of a responsible, peaceful, safe and sustainable use of space and (d) management and development of commercial initiatives in compliance with international commitments undertaken by Italy and with the national security requirements.

In light of the strategic nature of space infrastructure and its intrinsic link to the national security and protection architecture, we deem essential the adoption of a stratified and all-inclusive approach to preventing, deterring and, if necessary, defending against hostile attitudes. Moreover, strengthening and protecting national capabilities will remain vital to enhancing national security and the resilience with which the country responds to crises and emergencies.

To conclude, I wish to stress that Italy remains fully committed to preventing an arms race space in outer space and to keeping outer space from becoming an area of conflict as essential conditions to strengthen strategic stability.

A stable space environment in which all nations operate in accordance with their responsibilities in compliance with international law and the principles of the Charter of the United Nations would lead to a low risk of intentional threats and the possibility of conducting activities without having to resort to the development of self-defence capabilities.

We look forward to continuing this dialogue with all member States of the Conference. While not excluding, in the long run, the objective of an international legally binding instrument, we continue to believe that there would be value in having a comprehensive voluntary instrument within the framework of the United Nations. We therefore encourage further international cooperation to elaborate agreed principles of responsible behaviour in outer space. Thank you very much.

The President: Thank you, Ambassador Incarnato. The next speaker on my list is Ambassador Ogasawara Ichiro of Japan.

Mr. Ogasawara (Japan): Thank you very much. At the outset, I would like to express our appreciation to you, Mr. President, for making the prevention of an arms race in outer space the topic of today's plenary meeting and allowing Conference on Disarmament member States to exchange views on this important topic. I would also like to thank the presenters for their excellent presentations.

Regardless of country or region, our security and socioeconomic prosperity are becoming increasingly reliant on space. Space provides an essential platform to us all. Japan launched its first satellite in 1970, following the Soviet Union, the United States and France, and now ranks fifth in the world in terms of the number of satellites it has launched. Japan has continued to provide assistance to numerous countries for their space activities both through multilateral frameworks such as the International Space Station and through bilateral technical cooperation programmes. Japan has been cooperating with more than sixty countries in the area of the peaceful use of outer space. The launch of Al-Amal, which means hope, the Mars exploring satellite of the United Arab Emirates last year, can be quoted as most emblematic success in recent bilateral cooperation.

The peaceful and sustainable use of space is now facing an ever-growing risk. As the uses of space become diversified and the number of State and non-State actors increases, space is becoming more congested. The problem of long-lasting space debris is compounded by the development and deployment of counterspace capabilities such as direct-ascent anti-satellite weapon systems and by satellite collisions.

In June 2020, Japan therefore revised the Basic Plan on Space Policy, which upholds ensuring space security as one of the main targets of the country's space policy. As the risks which hamper the peaceful and sustainable use of space are increasing, Japan will continue to proactively engage in multilateral discussions and contribute to the development of effective rules and norms in order to ensure the security, safety and sustainability of space and to have the rule of law prevail there as well, with the aim being to secure a better future for space activities.

It is crucial for the international community to reach, through discussions, a common understanding on what the threats to space systems are and how to reduce them in order to maintain space as a peaceful, safe, stable and sustainable domain not affected by an arms race.

I reiterate Japan's unwavering support for the idea of preventing an arms race in outer space. We have constructively participated in substantive discussion on this topic within the Conference on Disarmament since its emergence as an agenda item in 1982, including the discussions held between 1985 and 1994 within the framework of the Conference's ad hoc committee on the prevention of an arms race in outer space. In parallel, Japan also participated in the relevant Group of Governmental Experts in 2018 and 2019. Throughout these discussions, Japan has underlined the importance of transparency and confidence-building measures as a practical short-term step to avoid risks of miscalculation and misunderstanding in space activities.

It is unfortunate that previous discussions have not produced the expected substantive outcomes. This is partially because of the difficulty of defining a "weapon" in space due to the fact that all objects in space have a dual-use nature. This dual-use nature also adds complexity to verification, which is one of the essential components of all arms control instruments, and poses difficult challenges to identifying space threats through focusing solely on technological capabilities. Space security should be discussed in a comprehensive manner by addressing issues arising not only from outer space itself but also from links, such as data links, between objects on Earth and in space.

With this in mind, Japan co-sponsored General Assembly resolution 75/36 last year. The resolution does not intend, as has been attempted previously, to define "weapons" in space. Rather, it is more feasible to establish a common understanding of patterns of behaviour that are regarded as either responsible or irresponsible. Since behaviours can be observed from the ground and even in outer space, they can serve as measurable criteria for

identifying potentially threatening activities in the absence of explicit intention. While the legality of such irresponsible behaviours awaits further discussion, the international community should strongly discourage such behaviours in light of their potential consequences to peaceful, safe and sustainable uses of space. Japan believes that this behaviour-based approach will contribute to enhancing security in outer space by mitigating threats through reducing risks of misunderstanding and miscalculation, which could entail increasing tension and conflict. Moreover, it underscores the importance of increased transparency and confidence-building measures to this end.

In its written submission to the United Nations Secretary-General under General Assembly resolution 75/36, Japan outlined three areas of focus to be examined on the way towards building common understandings of space security threats and responsible behaviours: first, creation of debris by deliberate destruction of space objects; second, rendezvous and proximity operations; third, harmful interference. In particular, with regard to the first point – creation of debris – the national submission of Japan notes that “States should refrain from using or testing those capabilities in a way that generates negative impacts on the space environment, especially through the creation of long-lived debris which could hamper the freedom of access to and use of outer space”. Japan calls on all Member States to refrain from the creation of such debris as a matter of urgency and without waiting for the establishment of any rules.

Now that our reliance on outer space is heightened in an unprecedented manner, space security is in the interest of all. It is therefore crucial to continue inclusive discussions. The approach focusing on behaviour proposed by the General Assembly resolution provides a basis for inclusive discussion and may enable us to overcome, through discussion, obstacles to substantive outcomes in the Conference. We hope for lively discussion based on the “responsible behaviour” approach.

To promote such discussions, Japan co-organized a 1.5-track workshop in cooperation with the Australian Strategic Policy Institute in April 2021, inviting participants from the Asia Pacific region. Japan values such exchanges of views and looks forward to continuing discussion on this important agenda.

Mr. President, to conclude, let me recall that operative paragraph 4 of General Assembly resolution 75/36 invites States members and observers of the Conference on Disarmament and the Disarmament Commission to inform those bodies of their national space security policies, strategies or doctrines on a voluntary basis. Japan believes this exercise, in which we, States members, are invited to engage, will contribute to enhancing transparency and credibility. As such, Japan appreciates the opportunity for discussion that has been provided today and would welcome any further such opportunities. Thank you, Mr. President.

The President: Thank you, Ambassador. Distinguished delegate, it is now 12.07 p.m. The time set aside for this meeting is over. I have several speakers remaining on my list. I therefore propose that we adjourn the meeting and exhaust the list in front of me during the plenary meeting this afternoon from 3 to 5 p.m. The secretariat has advised me that the same meeting link will be used.

If you accept this proposal, the meeting is adjourned.

The meeting rose at 12.10 pm.