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Комиссия по разоружению
Нью-Йорк, 8–29 апреля 2019 года*
Пункт 5 повестки дня

Рекомендации для содействия практическому осуществлению мер по обеспечению транспарентности и укреплению доверия в космосе в целях предотвращения гонки вооружений в космическом пространстве — в соответствии с рекомендациями, содержащимися в докладе Группы правительственных экспертов по мерам транспарентности и укреплению доверия в космосе

Рабочий документ, представленный Нигерией (от имени Группы африканских государств)

1. Группа африканских государств считает, что события, связанные с геополитической обстановкой и военными потенциалами, в сочетании с усилением опоры гражданского и военного секторов на системы космического базирования продолжают служить фактором, побуждающим уделять пристальное международное внимание вопросам космической безопасности и вероятности соперничества в контексте военных потенциалов, связанных с космосом. В этой связи Группа выражает озабоченность по поводу того, что возможное начало гонки вооружений в космическом пространстве может привести к развертыванию оружия в космосе, осуществлению политики, основанной на военном превосходстве в космическом пространстве, и дальнейшему развитию различных противоспутниковых средств.

2. Группа признает общую заинтересованность всего человечества в исследовании и использовании космического пространства исключительно в мирных целях и неотъемлемые и законные суверенные права всех государств на такое исследование и использование, подтверждает свою позицию, согласно которой она не приемлет и отвергает любые действия, ущемляющие или нарушающие эти права, и подчеркивает, что предотвращение гонки вооружений в космическом пространстве, включая запрет на размещение и применение оружия в

* Основная сессия Комиссии по разоружению 2019 года не была проведена в сроки, установленные Генеральной Ассамблеей в ее резолюции 73/82.

космическом пространстве, позволило бы предотвратить возникновение серьезной угрозы международному миру и безопасности.

3. Группа подчеркивает важность безотлагательного начала переговоров и скорейшего заключения международного юридически обязывающего документа о запрещении размещения и применения оружия в космическом пространстве и предотвращении там гонки вооружений.

4. Группа особо отмечает, что добровольные меры транспарентности и укрепления доверия могут отчасти и в течение короткого периода времени способствовать ослаблению недоверия и повышению уровня безопасности космических операций путем недопущения аварий, обусловленных ошибками или просчетами, однако они не могут заменить собой юридически обязывающий документ о предотвращении гонки вооружений в космическом пространстве, включая запрет на размещение любого оружия в космическом пространстве, а также на применение силы или угрозу применения силы против объектов, находящихся в космическом пространстве. Такие меры транспарентности и укрепления доверия можно было бы также интегрировать в будущий юридически обязывающий документ о предотвращении гонки вооружений в космическом пространстве.

5. Группа предлагает, чтобы в рамках этого пункта повестки дня Комиссия по разоружению:

a) признала общую заинтересованность всего человечества в исследовании и использовании космического пространства исключительно в мирных целях и неотъемлемые и законные суверенные права всех государств на такое исследование и использование;

b) подчеркнула, что предотвращение гонки вооружений в космическом пространстве, включая запрет на размещение и применение там оружия, имеет существенно важное значение для обеспечения исследования и использования космического пространства исключительно в мирных целях, а также для укрепления международного мира и безопасности;

c) особо отметила исключительную важность строгого соблюдения существующих соглашений — в том числе двусторонних соглашений — о контроле над вооружениями и разоружении применительно к космическому пространству и существующего правового режима, касающегося использования космического пространства;

d) выразила глубокую озабоченность по поводу возникновения серьезных негативных последствий для международного мира и безопасности и долгосрочной устойчивости космической деятельности в результате:

i) разработки и развертывания систем противоракетной обороны и возникновения угрозы размещения оружия в космическом пространстве или превращения космического пространства в поле боя, особенно в свете прекращения действия Договора между Союзом Советских Социалистических Республик и Соединенными Штатами Америки об ограничении систем противоракетной обороны (Договор по ПРО);

ii) приложения несколькими государствами энергичных усилий по разработке, накоплению запасов и испытанию вооружений, специально предназначенных исключительно для нанесения вооруженных ударов по спутникам или другим объектам в космосе, включая противоспутниковое оружие, или для использования в качестве космического оружия;

iii) развертывания стратегических систем противоракетной обороны, способного спровоцировать гонку вооружений и привести к дальнейшей разработке более совершенных ракетных систем и увеличению количества ядерных вооружений;

iv) размещения любых вооружений — наступательных или оборонительных — в космическом пространстве;

e) призвала Конференцию по разоружению как можно скорее начать субстантивную работу и субстантивные переговоры, в частности относительно предотвращения гонки вооружений в космическом пространстве, с учетом резолюций Генеральной Ассамблеи, озаглавленных «Предотвращение гонки вооружений в космическом пространстве» и «Неразмещение первыми оружия в космосе», и прогресса, достигнутого в ходе обсуждений, проведенных Группой правительственных экспертов, учрежденной согласно резолюции 72/250 Генеральной Ассамблеи по вопросу о дальнейших практических мерах по предотвращению гонки вооружений в космическом пространстве, и отраженного в проекте заключительного доклада Группы правительственных экспертов, который служит хорошей основой для дальнейших обсуждений[1];

f) настоятельно призвала все государства-члены, в частности те, которые обладают мощным космическим потенциалом, вносить активный вклад в достижение цели предотвращения гонки вооружений в космическом пространстве;

g) подчеркнула важность поощрения и укрепления международного сотрудничества в деле исследования и использования космического пространства в мирных целях, в частности путем уделения особого внимания выгодам и интересам развивающихся стран, и призвала прилагать усилия в этом направлении;

h) рекомендовала государствам-членам рассмотреть, сообразно обстоятельствам, возможность добровольного осуществления —в ожидании скорейшего заключения юридически обязывающего документа о предотвращении гонки вооружений в космическом пространстве — мер транспарентности и укрепления доверия, таких как:

- обмен информацией о военных доктринах, стратегиях и программах, касающихся космического пространства;
- направление уведомлений о планируемых запусках космических аппаратов;
- предоставление расширенной регистрационной информации о космических объектах;
- расширенный обмен данными о ситуационной осведомленности в космосе;
- направление уведомлений о планируемых маневрах и предсказуемом совпадении событий;
- направление заблаговременных уведомлений о преднамеренном разрушении объектов, находящихся на орбите;
- направление уведомлений о возможном проведении активных операций по удалению космического мусора;

[1] Проект доклада Группы правительственных экспертов, учрежденной согласно резолюции 72/250 Генеральной Ассамблеи, содержится в приложении к настоящему рабочему документу.

i) рекомендовала провести в рамках системы Организации Объединенных Наций дополнительную работу в целях более глубокого обсуждения технических аспектов и расширения областей совпадения взглядов, в том числе по вопросам, касающимся разработки возможных средств проверки выполнения основных обязательств, которые могли бы быть включены в юридически обязывающий документ.

Приложение[1]

Проект доклада Группы правительственных экспертов по дальнейшим практическим мерам по предотвращению гонки вооружений в космическом пространстве[*]

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[1] В приложении содержится представленный делегацией Нигерии от имени Группы африканских государств текст документа, распространенного Группой правительственных экспертов по дальнейшим практическим мерам по предотвращению гонки вооружений в космическом пространстве (GE-PAROS/2019/CRP.2 version 2019 03 29 13:00). Группа правительственных экспертов рассмотрела несколько проектов субстантивного доклада. Никакого консенсуса достигнуто не было. Процедурный доклад Группы правительственных экспертов был принят 5 апреля 2019 года и будет опубликован в качестве документа A/74/77.

[*] Распространяется только на том языке, на котором был представлен, и без официального редактирования.

I. Introduction

1. The Group was established in accordance with and worked on the basis of resolution 72/250. The mandate of the Group was to consider and make 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.

2. In that resolution, the General Assembly recognised that the prevention of an arms race, especially the placement of weapons in outer space, would avert a grave danger for international peace and security. The General Assembly also recognized the primary role and responsibility of the Conference on Disarmament in the negotiation of a multilateral agreement or agreements on the prevention of an arms race in outer space.

3. The Group considered issues relevant to its mandate and examined the evolving space security landscape and the prospects for and consequences of an arms race in, and the weaponization of, outer space; the status of international efforts to prevent an arms race in outer space; including the relevance and sufficiency of applicable norms and principles.

4. The Group considered that developments in the geopolitical environment and in military capabilities, coupled with increasing civilian and military dependence on space-based systems, would continue to compel close international attention to space security issues and affect the potential for competition in space-related military capabilities. In this respect, the Group considered the prospects of an arms race in outer space that could involve deployment of weapons in outer space, the pursuit of policies based on military dominance in outer space and the further development of various anti-satellite capabilities.

5. The outcome of the Group's considerations, including its conclusions and recommendations, are set out in this report. These considerations, conclusions and recommendations reflect consensus on important dimensions of the Group's work.

6. In fulfilling its mandate to consider and make recommendations on substantial elements of an international legally binding instrument, the Group adopted an inclusive approach based on a pool of elements and recorded a diverse range of views on those elements without prejudice to national positions or matters that might be raised in any future negotiations.

7. There was a range of views among the Group on the best approach for the prevention of an arms race in outer space. Some advocated for the commencement of negotiation on the treaty on the prevention of placement of weapons in outer space, the threat or use of force against outer space objects. Others supported the elaboration of non-legally binding norms of responsible behaviour, including the implementation of voluntary transparency and confidence-building measures. Still others supported an approach on a legally binding instrument on PAROS that incorporates elements of the other approaches.

8. The Group met in Geneva in two two-week sessions, the first in August 2018 and the second in March 2019. Its members included experts from 25 Member States, including Algeria, Argentina, Australia, Belarus, Brazil, Canada, Chile, China, Egypt, France, Germany, India, the Islamic Republic of Iran, Italy, Japan, Kazakhstan, Malaysia, Nigeria, Pakistan, the Republic of Korea, Romania, the Russian Federation, South Africa, the United Kingdom of Great Britain and Northern Ireland and the United States of America. The Group was chaired by Ambassador Guilherme de Aguiar Patriota (Brazil).

9. Prior to the first session, the Group benefited from an International Workshop on the Prevention of an Arms Race in Outer Space, which was convened in Beijing in July 2018 by the Office for Disarmament Affairs, together with the Ministry of Foreign Affairs of China and the Ministry of Foreign Affairs of the Russian Federation.

10. In accordance with resolution 72/250, the Chair of the Group convened a two-day open-ended intersessional informal consultative meeting, from 31 January to 1 February 2019, so that all Member States could engage in interactive discussions and share their views on the basis of a report on the work of the Group provided by the Chair in his own capacity.[2] At that meeting, the Chair also organized a series of panels in order to facilitate engagement and interaction between Member States and the broader outer space community, including representatives of national space agencies, the commercial sector and civil society.

11. During its sessions in Geneva, the Group benefited from presentations by the United Nations Institute of Disarmament Research and independent experts, including the International Committee of the Red Cross, the Prague Security Studies Institute, Center for International and Security Studies at Maryland (University of Maryland), the University of Texas at Austin, the University of Adelaide and Keldysh Institute of Applied Mathematics (Russian Academy of Sciences). The Group also benefited from presentations, working papers and other inputs from its own members. The Group also received written inputs from non-members of the Group, including non-governmental organizations.[3]

II. General considerations pertaining to substantial elements of a legally binding instrument

12. The Group was established in accordance with and worked on the basis of resolution 72/250. The mandate of the Group is to consider and make 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.

13. The Group discussed issues relevant to its mandate, and it examined the evolving space security landscape and the prospects for and consequences of an arms race in, and the weaponization of, outer space; the status of international efforts to prevent an arms race in outer space; including the relevance and sufficiency of applicable norms and principles.

14. The Group discussed general characteristics of an arms race in outer space. They considered that such an arms race entails a rivalry between two or more States, the development of competing military capabilities and the acceleration of spending in the quantitative or qualitative development of weapons. The Group reviewed the current situation with respect to security challenges related to outer space. Specific concerns included the growing number of objects in space, policies that consider outer space to be a warfighting domain, research and development of space-to-space and ground-to-space anti-satellite capabilities and space-to-ground weapon capabilities, as well as the possible placement of weapons in space and the possible use of force

[2] Materials from the open-ended intersessional informal consultative meeting are available on the website of the Office for Disarmament Affairs.

[3] Working papers made publicly available by the members of the Group as well as written inputs from non-members are accessible in the Official Documents System of the United Nations under the symbol series GE-PAROS/2019/WP.1-[7].

against space objects and the ground-based infrastructure from which they are operated.

15. Those contextual discussions were consolidated into four general groups of potential elements: (1) The existing legal regime in outer space and elements of general principles; (2) Elements of basic obligations; (3) Elements related to monitoring, verification, and transparency and confidence-building measures, and (4) elements related to international cooperation, institutional arrangements, and final provisions. The elements they discussed were not mutually exclusive and can be combined in different ways for a possible future legally binding instrument on the prevention of an arms race in outer space.

16. The Group recognized that the Conference on Disarmament as the single multilateral disarmament negotiating forum has the primary role and responsibility and is the most appropriate body to negotiate a legally binding instrument on the prevention of arms race in outer space. The issue of the prevention of an arms race in outer space has been on the agenda of the General Assembly and the Conference on Disarmament since 1985.

17. The draft treaty on the prevention of placement of weapons in outer space (PPWT) was a recurring topic as the debate progressed. Norms of conduct as well as transparency and confidence building measures were also recurring topics of discussion. Substantive exchanges were not limited to them or by them.

18. The Group agreed that any potential obligations must retain full consistency with the Charter of the United Nations and existing relevant treaties, including disarmament and arms control treaties, and in particular, the Outer Space Treaty, including their principles and obligations. The Group recalled that international law, including the Charter of the United Nations, applies in outer space. The Group discussed certain aspects relating to the applicability of international humanitarian law in outer space. It was noted that the military use of outer space in accordance with international law, including the Outer Space Treaty is not expressly prohibited. Experts debated and expressed various views on whether the existing legal regime can prevent an arms race in space in all its aspects. The Group noted that the existing legal regime does not prevent certain activities that could potentially lead to an arms race in outer space. There was the notion that it would be useful to avoid any attempt to determine what constitutes a possible scenario for the use of force in outer space per UN Charter Article 51.

19. The Group noted that Subsidiary Body 3 on the prevention of an arms race in outer space of the 2018 session of the Conference on Disarmament adopted report (CD/2140). The Group also noted that the United Nations Disarmament Commission discussed the matter during its 2018–2020 cycle. Work relevant to the prevention of an arms race in outer space has also been addressed in the working group on the long-term sustainability of outer space activities of the Committee on the Peaceful Uses of Outer Space and by the 2012–2013 Group of governmental experts on transparency and confidence-building measures in outer space activities.

20. The Group confirmed that verification is one of the essential components of all arms control instruments while acknowledging outer space as a challenging environment in this respect. The Group discussed many approaches to the verification of possible basic obligations. The Group also discussed practical, technical, financial and institutional challenges to the multilateral verification of a legally binding instrument on PAROS, and the implications of these challenges for the effectiveness of any future legally binding measures.

21. The Group discussed various possible threats to outer space activities. While perceptions varied among experts, they considered that a PAROS instrument should

address at least three scenarios: space-to-space; space-to-ground; and ground-to-space. Threats against terrestrial infrastructure related to outer space objects were also discussed. A perspective was presented for organizing threats in a spectrum from reversible and disruptive impacts to irreversible and destructive impacts. These means of attack included: (i) electronic warfare, including jamming and spoofing; (ii) cyber-attacks; (iii) directed energy attacks; (iv) orbital-based weapons, including anti-satellite systems; (v) terrestrial-based anti-satellite weapon systems; and (vi) nuclear weapon detonations in outer space.

22. For each type of threat there could be a proportional approach to obligations on harmful or hostile acts against outer space objects, based on the nature of the threat, taking into account challenges associated with attribution, verification, and the dual-use application, civil and military, of outer space objects and capabilities. The Group compiled a wide-ranging "pool" of potential elements of a possible legally binding instrument.

23. The Group discussed definitions at length, linking it to the matter of scope and basic obligations. The experts expressed various views on whether there was a need to compose explicit definitions, explored possible definitions, including those which are already available in existing outer space instruments and differed on whether precise definitions of certain terms would be useful or achievable. Some experts noted that some arms control treaties did not define terms.

24. The Group emphasized that any potential instrument should be non-discriminatory and contain operative provisions on the right to develop technology for peaceful purposes and positive obligations for international cooperation in promoting the peaceful uses outer space, and that an instrument should be designed to avoid hampering peaceful activities, or hindering access to dual-use technologies for peaceful purposes. Support was expressed for including provisions on capacity-building. The role of regional organizations in this regard was considered.

25. Various views were expressed on the institutional arrangements, with a number of experts emphasizing the importance of limiting institutional costs and identifying possible supporting roles for existing United Nations entities. Various views on entry into force were expressed, with many experts supporting an approach based upon a low number of ratifications along with a qualified category of major spacefaring States.

III. Substantial elements of a legally binding instrument

26. While noting the different views on the effectiveness, timing and conditions for a legally binding instrument as outlined in the preceding sections, Experts considered the following possible elements for a legally binding instrument on the prevention of an arms race in outer space. A number considered that such an instrument was necessary to prevent the weaponization of outer space, to maintain international peace and security and to preserve conditions for international cooperation in the peaceful exploration and use of outer space. A number of Experts regarded the draft "Treaty on the Prevention of Placement of Weapons in Outer Space, the Threat or Use of Force against Outer Space Objects" as a good basis for negotiations. A number of other Experts expressed the view that the best way forward is a non-binding agreement on voluntary measures, without ruling out the possibility of a legally binding instrument in the future.

27. The Group considered the practical value of transparency and confidence-building measures in outer space activities (TCBMs), which could both contribute to the prevention of an arms race in outer space and to the development of verification

of obligations in a legally binding instrument and further complement the existing regime applicable to outer space activities and serve as interim measures.

28. The Group affirmed the applicability of the existing legal framework to the prevention of an arms race in outer space. Some Experts considered, however, that the existing legal framework would not necessarily prevent the weaponization of outer space or the use of force against outer space objects.

A. Elements for the preamble

29. The Group considered the following elements:

Objectives and principles

- Reaffirm the exploration and use of outer space, including the Moon and other celestial bodies, is the province of all humankind;
- Reaffirm that the Moon and other celestial bodies shall be used exclusively for peaceful purposes;
- Recall that the General Assembly of the United Nations, through its resolutions on the prevention of an arms race in outer space, emphasized the need to examine further measures for effective and verifiable multilateral agreements in order to prevent an arms race in outer space;
- Reaffirm the importance of full compliance with the existing multilateral agreements related to outer space activities and recognize that observance of the principles and rules of international law in outer space activities contributes to building trust and confidence between States;
- Exploration and use of outer space for peaceful purposes plays an ever-increasing role in the sustainable development and well-being of humankind;
- Space systems, including but not limited to associated ground and space segments, are increasingly central to State domestic security and international peace and security and to the national interests of States;
- Recognize the vulnerability of the outer space environment to the consequences of weaponization and attacks and the impact such actions could have on humankind;
- Recognize the uncertainty inherent in space situational awareness, which may lead to misunderstandings and strategic miscalculation between space faring nations;
- Recognize the risk, threats and wider consequences posed by deliberate attacks that create multiple long-lasting space debris;
- To contribute to the maintenance of international peace and security;
- To prevent an arms race in outer space and to prevent outer space from becoming a domain of hostilities and military confrontation, including through the weaponization of outer space, thereby averting a grave danger to international peace and security;
- To dissuade the research, development, testing, production, acquisition, transfer and stockpiling of weapons specifically designed to target and destroy space objects, including their supporting infrastructure, space surveillance systems, or space-based weapons specifically designed to target terrestrial objects.

- That any instrument should provide for effective verification and transparency measures;
- Nothing in an instrument should impact the exploration and use of outer space for peaceful purposes by all States or hinder access to technologies, including dual-use technologies, exclusively for peaceful purposes;
- To facilitate, and have right to participate in fullest possible exchange of scientific and technical information for the exploration and use of outer space for peaceful purposes.

Principles contained in existing international law (legal underpinning)

30. The Group discussed the principles contained in existing international law, which a legally binding instrument could recall and make explicit reference to. In fulfilling objectives and reaching the goals of PAROS States should act in compliance with principles and norms applicable to outer space contained in the UN Charter and stay committed to the 1967 Outer Space Treaty, the existing international space law and in the disarmament and arms control agreements, as well as in other international legally binding, to which they are party, and non-legally binding instruments, to which they are committed. The Group discussed the following elements:

- The obligation of States Parties to the Treaty Banning Nuclear Weapon Tests in the Atmosphere, in Outer Space and Under Water of 1963 to prevent, and not to carry out any nuclear weapon test explosion, or any other nuclear explosion, at any place under its jurisdiction or control in the atmosphere or beyond its limits, including outer space;
- The Outer Space Treaty obliges the State Parties not to place in orbit around the earth any objects carrying nuclear weapons or any other kinds of weapons of mass destruction, not to install such weapons on celestial bodies, or station such weapons in outer space in any manner;
- The Moon and other celestial bodies should be used exclusively for peaceful purposes, and that the establishment of military bases, installations and fortifications, the testing of any type of weapons and the conduct of military manoeuvres on celestial bodies should remain forbidden;
- In the exploration and use of outer space, including the Moon and other celestial bodies, States should be guided by the principle of co-operation and mutual assistance and should conduct all their activities in outer space, including the moon and other celestial bodies, with due regard to the corresponding interests of all other States Parties to the Treaty;
- The existing legal regime has underpinned the prevention of armed conflict in outer space and provides a reliable foundation for any work on PAROS;
- The existing legal regime does not necessarily address all aspects of the prevention of an arms race in outer space or fully prevent the weaponization of outer space or the deliberate destruction of outer space objects;
- Further expand the international legal regime for outer space activities as contained in applicable international law;
- Reinforce voluntary principles and norms for behavior in outer space;
- The objective of general and complete disarmament under strict and effective international control.

31. The Group discussed the right to individual and collective self-defence, as provided by Article 51 of the Charter of the United Nations.

32. The Group discussed aspects of IHL as it applies in armed conflict. The Group noted that any reference to IHL should not presume the normalization of armed conflict in outer space.

B. Elements on basic obligations

33. This section describes elements that could form basic obligations, including prohibitions, limitations, restrictions or other measures, in a legally binding instrument.

Use of force

34. It was suggested that in addition to reaffirming Article 2 (4) of the Charter of the United Nations in the preamble, a legally binding instrument could include an obligation:

- Not to resort to the threat or use of force against space objects.

Attacks on space objects

35. The Group considered that another approach is to concentrate on actions that may result in the destruction of an outer space object and this could be specified as an obligation:

- Not to undertake any attack against an outer space object resulting in the irreversible damage or destruction of an outer space object.

36. Another approach could specify the nature of the attack by the domain of its origin and entail an obligation not to undertake any attack against an outer space object by means of any weapon deployed in terrestrial locations, including the ground, sea or air, or in outer space.

37. Another approach focuses on the effects of an attack. Such an approach could entail obligations:

- To refrain from any attack which brings about damage to space objects regardless of whether it results in the generation of orbital debris;
- To refrain from any attack which brings about multiple long-lasting orbital debris.

38. The Group discussed yet another approach to obligations focused on the effects of actions across a full spectrum of possible effects encompassing incapacitation, denial, degradation, damage or destruction resulting in effects equivalent to those of a use of force.

39. In addition to provisions relating to the use of force and to acts resulting in the destruction of outer space objects, a legally binding instrument could address the use of any outer space objects to carry out hostile acts. A general approach could entail obligations:

- Not to use any civil outer space object as a means of attack against an outer space object;
- Not to use any outer space object as a means of attack against terrestrial objects.

Attacks against terrestrial infrastructure related to outer space objects

40. To the extent that it is not addressed by any of the provision discussed above, a legally binding instrument could include a separate provision addressing attacks

against terrestrial infrastructure related to outer space objects. A general approach could entail an obligation:

- Not to disrupt or destroy by any means terrestrial infrastructure used to control outer space objects or space surveillance systems.

Developing, testing, stockpiling and deploying weapons

41. A legally binding instrument could include an obligation prohibiting the research, development, testing, acquisition, production, transfer stockpiling and deployment of weapons that are designed for the sole purpose of conducting armed attacks against satellites or other outer space objects from space or ground.

Placement of any weapons in outer space

42. A legally binding instrument could address the placement of weapons in outer space. A basic obligation could be:

- Not to place any weapons in outer space.

43. An obligation on the placement of weapons in outer space could specify the scope of weapons subject to prohibition, including weapons that pose space-to-space or space-to-ground threats.

Acts inconsistent with a legally binding instrument

44. A legally binding instrument could include a provision not to engage in acts inconsistent with the object and purpose of the instrument and not to assist, encourage or induce other States to undertake such acts.

Use or transfer of dual-use equipment, technology and materials

45. A legally binding instrument could affirm the rights of States develop outer space-related technologies for peaceful purposes and to taking into account the needs of developing countries. It should be non-discriminatory and could include a provision to avoid undue restrictions on the use or transfer of outer space-related technologies for peaceful purposes.

C. Elements on definitions

46. The Group discussed possible definitions for several terms, the meaning of which may need to be clarified and agreed upon in any future negotiations. The need for definitions would follow from the scope and nature of obligations. It was considered that to the greatest extent possible, existing definitions in agreed international instruments should be used to ensure consistent use of such terms. A number of reference points for definition were considered, including the draft treaty on the prevention of the placement of weapons in outer space. Even though various views were expressed on possible definitions of these terms and even on whether precise definitions would be useful or achievable. The following terms could require definition in a legally binding instrument on PAROS.

- Space object

  (Article 1(d) of the Convention on International Liability for Damage Caused by Space Objects and Article 1(b) of the Convention on the Registration of Objects Launched into Outer Space defines a “space object” as follows: “The term ‘space object’ includes component parts of a space object as well as its launch vehicle and parts thereof.”)

- Space weapon
- Weapon in outer space
- Space-to-space weapons
- Space-to-ground weapons
- Ground-to-space weapons
- Converted
- Dual-use
- Disrupt
- Damage
- Destroy
- Denial
- Degradation
- Placed in outer space
- Threat or use of force in outer space
- Space debris
- Armed attack in outer space
- Harmful interference to space objects

D. Elements on verification

47. The Group recognized that multilateral and non-discriminatory verification mechanisms are one of the essential components of any international arms control agreements. The Group agreed that verification measures should be proportional to the nature of the obligations. The Group agreed that any verification mechanism should be adequate to provide credible assurances that States are complying with their treaty obligations. The Group also discussed the extent to which verification should be perfect in order to be effective. It was recognized that comprehensive and intrusive verification might not be practical or cost-effective for some obligations in an instrument on PAROS.

48. The Group considered that verification could rely on a diverse set of tools and measures. It was suggested that certain agreed transparency and confidence-building measures, in addition to an institutional mechanism for dispute settlement and consultations, can complement a verification mechanism.

49. A key challenge in the development of effective verification is the difficulty in currently verifying the nature, characteristics and intended function of an outer space object once placed in orbit. Pre-launch inspections could be an element of effective verification, taking into account a need to balance effectiveness with the burden on the States subject to inspect. The extensive, and growing, dual-use nature of space systems further complicates verification in space, especially in relation to a prohibition on the placement of weapons in outer space. This underscored the need for efforts to strengthen verification capabilities and technologies and attention to complementary transparency and confidence-building measures to reinforce the effectiveness of any future instrument.

50. Verification of any obligations relating to terrestrial systems may be technically simpler than verification of obligations concerning space objects. Such verification, for example related to verification of anti-satellite missiles, would still require significant political will and may incur cost. The Group noted that verification of terrestrial commitments was important and that other conventional arms control instruments could be a source for potential methodology.

51. Given the complexity of verification, some experts suggested that verification could be addressed through an additional protocol when conditions are right, especially if more sophisticated technologies for verification are developed and readily available. Another view was that verification should be a central and fundamental component of any legally binding instrument from the outset.

52. Due to complexities and challenges associated with verification in a legally binding treaty on PAROS as discussed in this GGE, the Group acknowledged the need for further study on the ways to address its possible elements.

Space situational awareness

53. The Group recognized that the uncertainty in tracking outer space objects is quite high, which creates challenges for the purpose of PAROS. The Group discussed the importance of building capacity in space situational awareness as a means for strengthening transparency and safety of space operations as well as for assisting in characterizing or verifying the behavior of outer space objects, but it was acknowledged that current technology was not capable of assessing intent of any action. It was also considered that international cooperation, including through the United Nations, could be a means of enhancing space situational awareness. However, it was acknowledged that enhanced space situational awareness, although beneficial for space safety, would not be sufficient to ensure verification.

National technical means

54. It is agreed that monitoring and observation activities by States, in order to inform their national assessments regarding the compliance of other parties with their obligations, could complement a multilateral verification mechanism through established procedures. It was suggested that one approach could be based on Article 3 of the Treaty on the Prohibition of the Emplacement of Nuclear Weapons and Other Weapons of Mass Destruction on the Sea-Bed and the Ocean Floor and in the Subsoil. It was also noted that national technical means should be regarded only as complementary means of multilateral verification and that effective measures would need to be developed to prevent misuse of such means.

E. Elements on transparency and confidence building

55. The Group considered that a legally binding instrument on PAROS could include transparency and confidence-building measures, on a voluntary basis, unless agreed otherwise, with a view to promoting trust and confidence in the implementation of its provisions. Experts pointed out such measures should be applicable to all and non-discriminatory. Experts pointed out that transparency and confidence building measures could help generate momentum towards the future negotiation of a legally binding instrument. Furthermore, the adoption of a legally binding instrument could lead to the broader use of TCBMs. Reference was made to the report of the Group of governmental experts on transparency and confidence-building measures in outer space activities (A/68/189*). While noting the work that has been carried in the working group on the long-term sustainability of outer space activities of the Committee on the Peaceful Uses of Outer Space and by the

2012–2013 Group of governmental experts on transparency and confidence-building measures in outer space activities, the Group highlighted the following measures as especially relevant to the prevention of an arms race in outer space.

- Exchanges on military doctrines, strategies and policies relevant to outer space
- Pre-launch notification of spacecraft
- Enhanced registration of space objects
- Enhanced sharing of space situational awareness data
- Notifications of scheduled manoeuvres and predicted conjunctions
- Advance notification of intentional orbital breakups
- Familiarization visits to space facilities
- Visits to launch sites
- Demonstration of space technologies
- National point of contact
- Notifications on possible active debris removal operations

56. In addition to the above-mentioned TCBMs, consideration could be given to ways to carry out rendezvous and proximity operations (RPOs) so to take appropriate precautionary measures to mitigate any risk of collision and interference in order to contribute to the long-term sustainability of outer space activities. It could also include commitments to carry out RPOs in a cooperative and responsible way.

F. Elements on implementation and institutional arrangements

57. The Group discussed the institutional arrangements of a legally binding instrument, including on ideas for: a conference of States Parties; regular meetings of States, including an intersessional process; and a dedicated secretariat or an implementation support unit. It was emphasized that it would be important to limit any institutional costs as much as possible. Provisions on institutional arrangements would depend on the scope of an instrument, but they could be expected to follow from those contained within other legally binding instruments in the field of disarmament and arms control.

Consultative mechanism and settlement of disputes

58. States Parties can also be encouraged to consider using existing consultative mechanisms, for example, those provided for in article IX of the Outer Space Treaty and in the relevant provisions of the International Telecommunications Union Constitution and Radio Regulations, as amended.

59. Disputes between States Parties related to the implementation of the instrument could be primarily addressed through direct consultations among the Parties concerned and via procedures established for this purpose, including a right by a State Party to request another State Party to clarify the situation.

60. If the clarification does not resolve the concerns, a provision for consultations could be provided. There could also be provisions for regular consultations through bilateral and multilateral diplomatic exchanges and other government-to-government mechanisms, including bilateral, military-to-military, scientific and other channels, can contribute to preventing mishaps, misperceptions and mistrust.

61. Unresolved disputes and incidents of noncompliance could be reported to the United Nations General Assembly and/or the United Nations Security Council including upon the recommendation of the conference of States Parties.

G. Elements on peaceful uses of outer space and international cooperation

62. The Group discussed elements on peaceful uses of outer space and international cooperation. It was considered that an instrument should recognize the right of States Parties to the peaceful exploration and use of outer space, including the development, research, production and use of related technologies. It was further considered that an instrument could include positive obligations in which all the States Parties should undertake to facilitate, and have the right to participate in, the fullest possible exchange of equipment, materials and scientific and technological information for the peaceful exploration of outer space.

63. An instrument could also provide for the States Parties in a position to do so to cooperate in contributing to implementation of the instrument, to the further development of the applications of outer space for peaceful purposes and to promote the sustainability of outer space activities, including through the provision of technical assistance and capacity building, with due consideration for the needs of the developing areas of the world. Such international cooperation could, where appropriate, include, *inter alia*, the exchange of experience, scientific knowledge, technology and equipment for space activities on an equitable and mutually acceptable basis.

H. Elements on final provisions

64. The Group discussed certain possible final provisions for a legally binding instrument including on: amendments, additional protocols; costs; duration; withdrawal; relationships with other instruments; depositary; and entry into force.

65. The Group discussed various considerations for the provision on entry-into-force. In order to be viable and effective, a legally binding instrument should include participation of the major space-faring nations. Criteria for what constitutes a major space-faring nation will need to be determined. The provision relating to entry into force might not necessarily specify any category of States beyond major space-faring nations. It was considered that the total number of States whose ratifications would be necessary for entry into force should otherwise be kept to a low number, to ensure that the instrument can enter into force at an early date.

66. It was also suggested that there should be a mechanism by which intergovernmental organizations, that carry out activities in outer space, should be able to become bound by the provisions of the legally binding instrument.

IV. Conclusions and recommendations

67. Given the challenges of the outer space and contemporary global security environment, members of the Group underscored the importance of ensuring continued international commitment and attention to further practical measures on the prevention of an arms race in outer space, thereby enhancing global security and the maintenance of international peace. In this regard, the Group agreed that a number of measures including an international legally binding instrument could contribute practically to this goal.

68. The Group underscored the conclusions contained in CD/2140 of 5 September 2018 that growth in the amount of human space activity, coupled with the increased diversity of space operators, fuels the perception that the space domain is becoming increasingly congested and contested. The Group reaffirmed concerns about actions that could trigger misconceptions and miscalculations as well as over the deliberate and intentional use of force in space, from outer space or from terrestrial platforms against outer space objects.

69. In this report, members of the Group have considered and made recommendations on substantial elements of an international legally binding instrument on the prevention of an arms race in outer space.

70. The Group recalled that negotiations for the conclusion of an international agreement or agreements to prevent an arms race in outer space is one of the core issues on the agenda of the Conference on Disarmament and recommended that such work should begin once its programme of work is adopted. This report could help in the future work of the Conference on Disarmament on this issue.

71. Attention should also be given to measures that enhance transparency and confidence between all nations, in particular space-faring nations, in order to complement any further detailed work on a legally binding instrument. Transparency and confidence-building measures could form an integral part of such agreements, or complement them. Further work on voluntary TCBMs open to the participation of all States should be continued.

72. In transmitting the report of the Group of Governmental Experts to the General Assembly at its seventy-fourth session and to the Conference on Disarmament, prior to its 2020 session, the Secretary-General should call upon Member States of the United Nations and the Conference on Disarmament, respectively, to consider, fully examine and invite the views of Member States of the United Nations on the report of the Group. This might help the efforts of the international community on the prevention of an arms race in outer space. The Secretary-General should also make this report available to the wider international community and civil society, including on the websites of the United Nations and the Conference on Disarmament.

73. Additional work should be pursued to expand understanding on areas of commonalities, deepen technical discussions and broaden areas of agreement, including on issues discussed in this report. This should include support for work by scientific, technical and military experts on the development of possible means of verifying basic obligations as well as scope, definitions and the obligations themselves that could be contained in a legally binding instrument, as the Group agreed that all of these are essential components of a future instrument on PAROS.

Finally, the Group demonstrated through the development of substantial elements on an international legally binding instrument that the various perspectives on an instrument should not be an obstacle to future work on the prevention of an arms race in outer space. This could include further detailed work on the identified substantial elements.

74. The Secretary-General should continue to support the efforts of Member States to prevent an arms race in outer space.