

UNITED NATIONS
INSTITUTE
FOR DISARMAMENT
RESEARCH

SEEKING COMPREHENSIVE SOLUTIONS IN SPACE
***THE ROLE OF THE AMERICAS IN DEVELOPING
NORMS OF BEHAVIOUR***

Facilitating the Process
for the Development of an
International Code of Conduct
for Outer Space Activities



UNITED NATIONS

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Seeking Comprehensive Solutions in Space: The role of the Americas in developing norms of behaviour

Introduction

Over the last few decades, there has been a significant increase globally in the use of space-based services, with more and more actors becoming engaged in space activities. Nearly every state on Earth has some reliance on space technologies. The nature of a state's space activities is shaped by a wide range of social, economic, and political factors, resulting in a broad range of diverse space capabilities. This is particularly evident in the Americas. The United States of America, a leader in space activities for more than 50 years, continues to invest its significant resources into developing extensive civilian and military space programmes to meet its national needs. Most other state space actors in the region, particularly states of Latin America and the Caribbean,¹ have relatively recently begun investing in space technology and have focused their efforts largely on enhancing telecommunication and scientific investigation. Despite their differences, space programmes across the region share a common vision of using space-based benefits to facilitate sustainable socioeconomic development and enhance the lives of all people.

At present, all space activities are at risk from a number of natural and man-made threats to space stability, ranging from solar radiation to space debris.² Man-made threats are, in particular, on the rise as outer space becomes increasingly congested and contested, a result of more and more actors seeking to utilize space to meet their specific needs. Due to the physical characteristics of space, many space activities, even if conducted carefully, can have widely-felt consequences for all actors. For example, any space actor, whether established or emerging, can be responsible for a collision that results in the creation of space debris, which in turn can lead to further collisions.³ Members of the international community are increasingly aware of the importance of space activities being carried out in a manner that will not jeopardize the future use of the space domain.⁴

Against this backdrop, several multilateral initiatives have arisen that seek to address space security threats through the establishment of norms of behaviour for space activities. These norms represent voluntary “rules of the road” for space activities, providing actors with guidance on the parameters of responsible behaviour in space. Such voluntary measures are implemented or adhered to by states through domestic means, making wide-spread support for norms of behaviour a critical factor for their effectiveness. While seen as a potentially valuable and timely tool for addressing space security and sustainability, developing international norms that are able to command wide-spread support presents numerous challenges because of the wide range of needs and interests at play.⁵ These challenges are particularly acute in the Americas where there are sharp divides between the technical and political needs of the regional space actors.

This paper will analyse the example presented by the Americas as a microcosm of wider global perspectives on space security and the implications of the diverse interests being taken into account when building norms of behaviour. Specifically, it will examine developing space capabilities in the Americas, the recent activities of these states in multilateral forums related to the development of international frameworks for space activities, and the possible role of actors in the region in the development of future norms.

Space activities across the Americas

When looking at the space capabilities of states in the Americas, there is a sharp distinction between the United States, on the one hand, and Latin American and Caribbean states, on the other. These differences can be attributed to several factors. First, these states have disparate levels of access to economic and technological resources. Second, while sharing many objectives regarding their space activities, some applications, such as military applications, are seen in a considerably different light by Latin American and Caribbean states than by the United States.

1 Latin America and the Caribbean, as defined by the United Nations, includes those countries located in the Caribbean, Central America, and South America.

2 F.A. Rose, “Pursuing space TCBMs for long-term sustainability and security”, delivered at the International Symposium on Sustainable Space Development and Utilization for Humankind, Shinagawa, Tokyo, 28 February 2013. UNIDIR, *Space Security Conference 2012*, p. 5, www.unidir.org/files/publications/pdfs/space-security-2012-en-306.pdf.

3 “Ecuador Pegasus satellite fears over space debris crash”, BBC News, 23 May 2013.

4 General Assembly, *Report of the Committee on the Peaceful Uses of Outer Space* UN document A/67/20, paras. 177–188.

5 UNIDIR, *A Brief Overview of Norms Development in Outer Space*, 2013.

Since the beginning of the space age, the United States has been one of the world's principal space actors. The United States is one of the few states that has engaged in manned spaceflight, and carries out a wide array of scientific, commercial, and military space activities. Its space capabilities are largely reflective of the early, formative days of space exploration when the United States and the Soviet Union were engaged in the Cold War and outer space was seen as a potential stage for armed conflict.⁶ As a result, the United States maintains one of the most highly developed military space programmes, one with a mandate to explore offensive counter-space technology, which can be used to “neutralize an adversary’s space systems or the information they provide”.⁷ Even though the recent economic downturn has forced budget cuts to scientific and military space programmes, the United States continues to invest heavily in its space sector.

Where the United States has developed an extensive military space programme, states across Latin America and the Caribbean have developed their space capabilities in a very different manner. In the last two decades, numerous states have emerged as rising players in outer space thanks to recent economic growth, technological innovation, new trade relations, and the emergence of the commercial space sector.⁸ The motivation behind much of these space activities is sustainable development, with a particular emphasis on telecommunication.⁹ According to the International Telecommunication Union (ITU), by the end of 2011, 20 of the 33 countries in Latin America and the Caribbean—including Argentina, Brazil, Chile, Ecuador, Guatemala, Panama, Peru, and Uruguay— had more mobile cellular subscriptions than inhabitants.¹⁰ Other applications being explored are resource management, disaster mitigation, and climate monitoring. There is little indication that any efforts are being made by most states in the region to acquire counter-space technology. On the contrary, most space actors in the region have spoken out against the development of such capabilities.¹¹

Currently, new partnerships with states abroad are developing in the region, with space actors such as the People’s Republic of China, India, the Russian Federation, and a number of European states contributing to civilian-oriented or scientific projects.¹² The rise of private space actors has also had a significant impact on regional space activities over the last few years, with companies such as SES and Intelsat seeking to meet the demands of a growing population for more and more space-based services.

Brazil has, in particular, emerged as a regional leader in space activities. Thanks to a strong economy, it has recently been able to pledge significant resources to the development of a comprehensive space programme, including manufacturers, operators and, most notably, national launch service providers.¹³ While Brazil has indicated that it is seeking to make space capabilities a part of its national defence programme, currently its activities in space remain largely of a civilian nature.

Despite the different paths taken by these states on the way to developing space capabilities, significant efforts are being made to find opportunities for cooperation in space as a means of improving international relations. For example, the United States has historically made environmental data available to Latin American and Caribbean states in order to enhance decision-making capabilities for sustainable development.¹⁴ The easing of US export controls for certain types of space technology also suggests that there could be greater access for Latin American and Caribbean states to important commercial space services, potentially increasing economic cooperation with the United States.¹⁵ These practical efforts to increase cooperation could serve as the foundation for the finding of common solutions to address space security issues that bridge the distinct approaches thus far adopted by the United States and Latin American and Caribbean states.

6 T. Hitchens, “Multilateralism in space: opportunities and challenges for achieving space security”, *Space and Defense*, vol. 2, no. 4, 2010.

7 T. Wilson, “Threats to United States capabilities”, prepared for the Commission to Assess United States National Security Space Management and Organization, 2000. V. Samson, “Space control in the Air Force’s 2014 budget request”, *The Space Review*, 22 July 2013.

8 A. Sanchez, “Latin America’s space programs in 2012”, *The Space Review*, 27 August 2012.

9 See J.M. Forman et al., *Toward the Heavens: Latin America’s Emerging Space Programs*, Center for Strategic and International Studies, 2009.

10 ITU, “Latin America and the Caribbean key statistical highlights: ITU data release June 2012”, www.itu.int/net/newsroom/Connect/americas/2012/docs/americas-stats.pdf.

11 From the thematic debate on disarmament aspects of outer space of the United Nations General Assembly, 23 October 2012, see statement by Brazil, www.un.org/disarmament/special/meetings/firstcommittee/67/pdfs/Thematic/23%20Oct%20TD%20Clust%203%20Brazil.pdf; and statement by Indonesia on behalf of the Non-Aligned Movement, [www.un.org/disarmament/special/meetings/firstcommittee/67/pdfs/Thematic/22%20Oct%20TD%20Clust%203%20Indonesia%20\(NAM\).pdf](http://www.un.org/disarmament/special/meetings/firstcommittee/67/pdfs/Thematic/22%20Oct%20TD%20Clust%203%20Indonesia%20(NAM).pdf).

12 J.M. Forman et al., *Toward the Heavens: Latin America’s Emerging Space Programs*, Center for Strategic and International Studies, 2009, p. 7.

13 P. Carriel, “Brasil reforça programa espacial”, *Gazeta do Povo*, 16 October 2011. “Alcantara Cyclone Space board meets in Kyiv to discuss Cyclone-4 project”, *Interfax-Ukraine*, 30 April 2013. A. Sanchez, “Latin America’s space programs in 2012”, *The Space Review*, 27 August 2012. J.M. Forman et al., *Toward the Heavens: Latin America’s Emerging Space Programs*, Center for Strategic and International Studies, 2009, pp. 6–7.

14 See for example Sistema Regional de Visualización y Monitoreo de Mesoamérica, www.servir.net; “NASA hosts symposium about Latin American space partnerships”, NASA press release, 16 September 2010.

15 “State and Commerce publish proposed rules for Category XV”, *Export Control Reform Blog*, 29 May 2013, <http://export.gov/ecr/>.

Distinct approaches to space security

There are a number of man-made security threats that increasingly put the stability of space at risk, but there are two in particular that have become the centre of significant discussion at the multilateral level: space debris and the risk of armed conflict in outer space. These two issues are not directly addressed by the existing regulatory framework of space activities, and so policymakers are presently engaged in a number of ongoing discussions to find realistic solutions to these threats to the long-term sustainability of space activities.¹⁶

Space debris

Space debris refers to non-functional, man-made objects either in orbit or re-entering the Earth's atmosphere. These objects, which have been multiplying significantly over the last five years, are capable of causing catastrophic damage to any space asset or person as the result of a collision.¹⁷ Without further intervention, it is likely that the current growth of space debris will render the most congested orbits all but unusable within the next 100 years.¹⁸ This threat is a concern to all space actors as debris is a threat to all actors, regardless of their level of space development, as seen in the 2009 collision of the Iridium and Kosmos satellites.¹⁹

The United States, whose large fleet of space assets is constantly at risk from space debris, mitigates this threat through technical and political measures. First, it has developed a highly sophisticated tracking system that gives it the ability to anticipate collisions with debris.²⁰ Secondly, it is a leader in ongoing efforts to develop multilateral tools for the mitigation of space debris, particularly voluntary norms of behaviour. The United States' National Aeronautics and Space Agency (NASA), along with five other state space agencies from around the world, is a member of the Inter-Agency Space Debris Coordination Committee that developed the Space Debris Mitigation Guidelines, a set of voluntary technical recommendations for the manufacturing, launching, and operating of a space asset so that debris creation can be reduced. These guidelines, endorsed by the United Nations Committee on the Peaceful Uses of Outer Space (COPUOS) as useful a tool for the mitigation of debris, were partly based on the best practices developed by the United States to avoid the creation of debris in space activities.

A number of Latin American and Caribbean states, such as Argentina, Brazil, Chile, and Mexico, are also taking an active role in the work of ongoing initiatives to ensure that a solution to the problem of space debris can be found that will meet the needs of all space actors. However, several states in Latin America and the Caribbean have proposed that any mitigation measures must be equitable in their approach, taking into account the fact that established space actors are responsible for the majority of existing space debris.²¹ Their major concern is that space debris mitigation measures will impose an undue burden on emerging space actors, forcing these new actors to bear the cost for debris created by established space actors. Specifically, some space debris mitigation measures call for the moving of assets to end-of-life orbits or to re-enter the atmosphere at the end of life, all of which can increase the cost of manufacturing and launch as well as reducing the useful life of the asset in question. As discussions on new space debris mitigation measures go forward, this will be a point of concern for many emerging space actors, including many in the region, that will need to be resolved in order to win support among these actors. This will be particularly important for norms of behaviour, many provisions of which must be enacted voluntarily at the national level by states themselves.

Armed conflict and outer space

The 2007 destruction of a Chinese satellite in orbit, followed by the 2008 destruction of an American satellite as it re-entered the Earth's atmosphere, sparked significant concern among the space community. Part of this concern is related to the fact that the 2007 incident resulted in one of the single largest clouds of orbital debris ever produced by human

16 J. Beadsworth, "Developing voluntary rules of the road for the enhancement of safety, stability and security in outer space", presented at the UNIDIR seminar "Space equities: the role of the Americas in building norms of behaviour", Mexico City, 2–3 July 2013.

17 C. Mathieu, "Space debris: a challenge for all actors", presented at the UNIDIR seminar "The role of norms of behaviour for African space activities", held in Addis Ababa, 7–8 March 2013.

18 "Stability of the future LEO environment", a report of a study carried out by the Inter-Agency Space Debris Coordination Committee, presented to the Scientific and Technical Subcommittee of COPUOS, Vienna, February 2013.

19 B. Iannotta and T. Malik, "US satellite destroyed in space collision", Space.com, 11 February 2009.

20 It should be noted that the United States' capabilities to track space assets have recently been reduced as a result of budget cuts to its Air Force Space Surveillance System; M. Gruss, "Gen. Shelton on Space Fence closure and the road ahead", *SpaceNews*, 28 August 2013.

21 J. Monserrat Filho, "Space debris: the primary space security threat", presented at the UNIDIR seminar "Space equities: the role of the Americas in building norms of behaviour", Mexico City, 2–3 July 2013. R. Ma. Ramírez de Arellano y Haro, "UN COPUOS: Grupo de Trabajo sobre la Sostenibilidad a largo plazo de las actividades en el espacio ultraterrestre", presented at the UNIDIR seminar "Space equities: the role of the Americas in building norms of behaviour", Mexico City, 2–3 July 2013.

activity.²² The other major concern with this incident relates to outer space becoming a theatre for armed conflict.²³ Militaries from all over the world have been using space to facilitate strategic operations for many years, using space assets for everything from communications between troops to intelligence gathering. In this context, outer space has long been militarized. However, the weaponization of outer space has not yet occurred.

The concept of space weaponization has a number of key definitional problems that make mitigation efforts difficult. First, it is unclear what constitutes an outer space weapon. While certain counter-space technology is easy to identify, such as a ballistic missile or laser, others are more difficult since even a satellite could be used to destroy another asset by means of an intentional collision. Secondly, it is unclear whether only objects placed in outer space constitute “space weapons”. It is also unclear if technology launched from Earth at targets in space, as in the case of the two incidents mentioned above, is a part of the weaponization of outer space, likewise the transit of technology through space on its way to a target on Earth, such as in the case of intercontinental ballistic missiles. The common fear regarding all these developments is that they will ignite an arms race in outer space that will ultimately lead to armed conflict capable of destroying the relative stability currently enjoyed in space, stability that has facilitated significant development for people all over the world. Given this, it is concerning that current trends would seem to indicate that the weaponization of outer space is becoming more likely. Today, a number of states have openly declared their intent to develop ballistic missile technology, which could as well be used to target objects in space.²⁴ Additionally, numerous other states have begun experimenting with other means of destroying or disabling a space asset, including jamming devices and cyberattacks. These varied forms of attack all share a destabilizing nature for space activities because they reduce the reliability of space-based services, increase the risk of harm or interference to space assets, and could lead to the proliferation of space debris.

The United States and the Latin American and Caribbean states have markedly distinct policy approaches to this issue. The United States has made both offensive and defensive counter-space operations a major component of its national defense policy. Its former position of rejecting any agreement that would constrain the United States’ freedom of activity in space (including counter-space operations) has been softened in its 2010 space policy, which opens the possibility of accepting an arms control agreement in space provided that it is equitable and effectively verifiable.²⁵ However, the United States has maintained that it has the right to defend its space systems, including through the use of counter-space technology, in accordance with the concept of the inherent right of self-defence.²⁶ This position is difficult to reconcile with that of many Latin American and Caribbean states, which have been voicing the view that outer space should be strictly used for peaceful purposes.²⁷ This is consistent with the region’s history of adopting sweeping legislation banning controversial technology, such as the Treaty for the Prohibition of Nuclear Weapons in Latin America and the Caribbean.

At the multilateral level, this issue of armed conflict in space is being discussed within the Conference on Disarmament (CD), the single multilateral disarmament negotiating forum of the international community, and the First Committee of the United Nations General Assembly. Within the CD, a standing topic of work is the prevention of an arms race in outer space (PAROS) under which work on a treaty on the prevention of the placement of weapons in outer space has been undertaken. However, the CD, as a body, has been at a standstill for almost two decades, which makes outcomes on space issues currently impossible to achieve. The United States in particular has stated that, as mentioned above, it is willing to accept arms control measures provided that they are equitable and verifiable; however, it is its position that no such proposal has been put forth, including the Russian and Chinese joint proposal for a Treaty on Prevention of the Placement of Weapons in Outer Space and of the Threat or Use of Force Against Outer Space Objects (PPWT).²⁸

22 C. Mathieu, “Space debris: a challenge for all actors”, presented at the UNIDIR seminar “The role of norms of behaviour for African space activities”, Addis Ababa, 7–8 March 2013.

23 T. Hitchens, “Weapons in space: silver bullet or Russian roulette? The policy implications of US pursuit of space-based weapons”, in J.M. Logsdon and G. Adams (eds.), *Space Weapons: Are They Needed?*, 2003.

24 A.K. John, “India and the ASAT weapon”, Observer Research Foundation, Issue Brief no. 41, August 2012. B. Opall-Rome, “Israeli experts: Arrow-3 could be adapted for anti-satellite role”, *SpaceNews*, 9 November 2009. T. Hitchens, “An ASAT arms race: the slippery slope to space weaponization”, *Disarmament Times*, 2007.

25 J. Kueter, “Evaluating the Obama national space policy: continuity and new priorities”, George C. Marshall Institute, Policy Outlook, July 2010, pp. 8–10.

26 *National Space Policy of the United States of America*, 28 June 2010.

27 From the thematic debate on disarmament aspects of outer space of the United Nations General Assembly, 23 October 2012, see statement by Brazil, www.un.org/disarmament/special/meetings/firstcommittee/67/pdfs/Thematic/23%20Oct%20TD%20Clust%203%20Brazil.pdf; and statement by Indonesia on behalf of the Non-Aligned Movement, [www.un.org/disarmament/special/meetings/firstcommittee/67/pdfs/Thematic/22%20Oct%20TD%20Clust%203%20Indonesia%20\(NAM\).pdf](http://www.un.org/disarmament/special/meetings/firstcommittee/67/pdfs/Thematic/22%20Oct%20TD%20Clust%203%20Indonesia%20(NAM).pdf). Statement of the Group of 21 on PAROS to the CD, 6 July 2010, [www.unog.ch/80256EDD006B8954/\(httpAssets\)/A022D48295D9ED07C1257759004575FC/\\$file/1188_G21.pdf](http://www.unog.ch/80256EDD006B8954/(httpAssets)/A022D48295D9ED07C1257759004575FC/$file/1188_G21.pdf).

28 Statement of the United States From the thematic debate on disarmament aspects of outer space of the United Nations General Assembly, 22 October 2012, www.un.org/disarmament/special/meetings/firstcommittee/67/pdfs/Thematic/22%20Oct%20TD%20Clust%203%20USA.pdf.

As an alternative, the United States has proposed the development of voluntary measures within the First Committee of the General Assembly, the other multilateral body addressing the potential spread of armed conflict into space, to reduce tensions created by mistrust in space activities. In particular, it has promoted the adoption of transparency and confidence-building measures (TCBMs) as a means of promoting openness and trust among states through information exchange in activities that create security concerns. Brazil, Chile, and the United States were members of the recent United Nations Group of Governmental Experts (GGE) on TCBMs. The GGE was asked to provide recommendations on voluntary TCBMs to mitigate the dangers of a congested and contested space environment. The GGE will present this report in 2013.

While voicing their support for voluntary measures as intermediary solutions to space security issues, numerous Latin American and Caribbean states have continued calling for a formal treaty preventing the placement of weapons in outer space, with some taking note of the PPWT proposal as a starting point for negotiations.²⁹ This position is partly driven by the fact that these states do not have the capabilities to engage in armed conflict in space and an absolute ban on weaponization of space would best ensure the integrity of space assets belonging to them. While the question of arms control in space has created friction between the United States and Latin America and the Caribbean in the past, the shift in the United States' tone over the last few years suggests that there is now a possibility for compromise on this issue.

The role of the Americas in building norms of behaviour

The negotiation of legally binding instruments is an arduous task that can take many years. The last formal United Nations space treaty to be adopted was the 1979 Agreement Governing the Activities of States on the Moon and Other Celestial Bodies, an instrument which received considerably less support than its predecessors.³⁰ In light of the CD's inability to make progress, there are few options for adopting new multilateral regulations to address growing space security concerns. It is for this reason in particular that policymakers have turned to voluntary norms of behaviour as a means of mitigating clear and present dangers in space in the absence of legal solutions. The establishment of such norms does not necessarily preclude the further negotiation of treaties and may even serve to make actors more comfortable with certain standards of conduct in anticipation of adopting legal commitments. Nevertheless, much of the attractiveness of norms lies in their non-legally binding nature.

At present, there are three important initiatives currently underway for the development of norms, namely the GGE, the Working Group of the Scientific and Technical Subcommittee of COPUOS on the Long-Term Sustainability of Space Activities (LTSSA), and the European Union's proposed International Code of Conduct for Outer Space Activities (ICoC). Each of these initiatives will need to put effort into ensuring that the resulting reports, guidelines, or codes they will produce can command widespread support. These challenges will be manifest as the United States and many Latin American and Caribbean states seek to reconcile their different approaches to current space security issues. In this context, part of the role of the Americas in the building of norms of behaviour will be to identify the major substantive issues to be resolved between established and emerging space actors.

GGE

As discussed above, the recommendations of the GGE will be aimed at preventing miscommunication and miscalculation that could result in increased security tensions among states in space. As the objective of the GGE is to identify simple mechanisms for increasing trust, states across the Americas have shown early signs of strong support. Nevertheless, it is likely that a number of Latin American and Caribbean states will continue calling for the adoption of a formal treaty on the prevention of the placement of weapons in outer space, arguing that a legal rather than political instrument is required to ensure the long-term sustainability of space activities.

LTSSA

The LTSSA is seeking to develop technical rather than political guidelines to further enhance long-term sustainability in space. This Working Group has four subgroups: A) developing guidelines on sustainable space utilization supporting sustainable development on Earth; B) space debris, space operations, and tools to support space situational awareness sharing; C) space weather; and D) regulatory regimes and guidance for new actors in the space arena. As these guidelines

29 Statement of Argentina to the CD, 3 March 2008, [www.unog.ch/80256EDD006B8954/\(httpAssets\)/500D60387260B9B3C125740100558332/\\$file/1095_Argentina_S.pdf](http://www.unog.ch/80256EDD006B8954/(httpAssets)/500D60387260B9B3C125740100558332/$file/1095_Argentina_S.pdf); and statement from the thematic debate on disarmament aspects of outer space of the United Nations General Assembly by Indonesia on behalf of the Non-Aligned Movement, 22 October 2012, [www.un.org/disarmament/special/meetings/firstcommittee/67/pdfs/Thematic/22%20Oct%20TD%20Clust%203%20Indonesia%20\(NAM\).pdf](http://www.un.org/disarmament/special/meetings/firstcommittee/67/pdfs/Thematic/22%20Oct%20TD%20Clust%203%20Indonesia%20(NAM).pdf). F. Romero Vazquez, "Space for development: a regional game changer?", presented at the UNIDIR seminar "Space equities: the role of the Americas in building norms of behaviour", Mexico City, 2–3 July 2013.

30 The Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies (the Outer Space Treaty) presently has 102 parties, while the Moon Agreement only has 15.

will be of a technical nature, they should be drafted bearing in mind the limited capabilities and resources of emerging actors. Otherwise, the Working Group risks producing guidelines that can only be adhered to by the few established space actors, such as the United States.

ICoC

The ICoC initiative seeks to establish voluntary norms of behaviour based on best practices for all space activities, including civilian and military activities, in order to mitigate the threats facing a congested and contested space environment. These norms include space debris mitigation measures as well as information and data exchanges as a form of TCBMs. The United States has been a strong advocate of this initiative, though with some domestic reservations regarding the non-binding nature of such voluntary tools.³¹ A number of Latin American and Caribbean states, while supporting the overall aim of enhancing security in outer space, have expressed reservations regarding the possible imposition of undue technical burdens on emerging states, the creation of barriers to entry into space, and perhaps enabling the spread of armed conflict into outer space through the inclusion of a reference to the inherent right of self-defence.³² This last concern is particularly sensitive as others in the international community are of the opinion that, under international law, a state always has the inherent right of self-defence, as laid out under Article 51 of the Charter of the United Nations, and that is no less applicable to outer space.

Conclusion

Any analysis of outstanding political and technical issues often highlights differences between actors' positions without sufficiently emphasizing common interests. Space security issues are, on the surface, no different. The United States, a well-established space actor, has sought to establish, first, voluntary guidelines that will reduce the risk of space debris proliferation and, secondly, political obligations that will increase transparency and confidence among states. Many Latin American and Caribbean states, nearly all of which are still in the early stages of developing domestic space capabilities, seek, first, solutions to space debris that will not impose undue burden on their nascent space programmes and, secondly, an outright ban on the weaponization of outer space. These positions are not mutually exclusive. All actors in the Americas are in agreement that space debris must be addressed and that armed conflict in space would have catastrophic consequences for all space activities. As the states of the region strengthen diplomatic relations through cooperation on scientific civil space activities, they might also seek solutions on space security issues that command widespread support from both established and emerging space actors.

In this context, the Americas as a region has the potential to be key in bridging differences on space security issues. Many of the differences found in the Americas are also seen in other regions of the world, with emerging and established space actors having distinct sets of concerns regarding space security. By identifying the common interests of established and emerging space actors within the Americas, policymakers in the region will help bridge gaps shared by global actors. Doing so can enable the finding of comprehensive solutions that appeal to all space actors. In anticipation of further discussions on the numerous initiatives to establish norms of behaviour, dialogue among actors in the Americas can aid in the development of common approaches that might command widespread support among all space actors.

31 It is worth noting that the US Congress has continued protecting the United States' freedom of action in space, going so far as to declare that if the US should become a signatory to the ICoC, the President will have to assure Congress that it will not limit the United States' activities in space in any way; *National Defense Authorization Act for Fiscal Year 2013*, § 913, <http://docs.house.gov/billsthisweek/20121217/CRPT-112HRPT-705.pdf>.

32 See report of the UNIDIR seminar "Space equities: the role of the Americas in building norms of behaviour", Mexico City, 2–3 July 2013.



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CFSP/2012/05/COC-UNIDIR, carried out with funding by the European Union