

***Celebrating the 65th Anniversary of the Institute of Air and Space Law***

***Call for Papers***

**4th Manfred Lachs International Conference on**

***Conflicts in Space and the Rule of Law***

**Organized by the**

**Institute of Air and Space Law and**

**Centre for Research in Air and Space Law**

**Faculty of Law, McGill University, Montreal, Canada**

**27 and 28 May 2016**

Almost sixty years of exploration and use of outer space have brought unprecedented benefits to mankind. Humanity now depends heavily upon space, and even a single “day without satellites” would have disastrous impacts for everyone on Earth, particularly those who increasingly rely on space assets. In 2014, the global space economy grew by 9% (compared with 2013) and is currently a $330 billion annual economic activity. Space products and services have become indispensable for such applications as banking, agriculture, tracking climate change, communications, international arms control and disarmament, health delivery, natural disaster management, transportation, national and global security and weather forecasting.

However, many concerns exist today across a broad spectrum of issues with regard to the exploitation of space natural resources and activities in outer space that impact upon notions of national and global security.

On 25 November 2015, the United States adopted a new Act under which American companies would be entitled to private property rights with regard to any natural resources they would mine in outer space. This has already aroused several concerns internationally, primarily because the mining of asteroids and other celestial bodies in outer space could generate billions, if not trillions, of dollars in revenue and could also have serious implications for the space environment. This Act also called for a detailed study of space traffic management. This subject, and the nature and extent of national and international space traffic management and control, also gives rise to other types of security concerns and issues.

For example, national security issues may arise with respect to orbital debris, the jamming or disabling of spacecraft, cyber-attacks on space systems, the potential development of space or ground systems that could disable or destroy space systems, and the dual-use of systems developed specifically for in-orbit repair, retrofit or refueling, but which could also be used to de-orbit space debris or attack active satellites. Concerns also exist over the use of systems that move between commercial airspace and outer space - sometimes called sub-space or protospace - and space objects in Earth orbit, including various “space weapons” and military space systems. These technologies, activities and issues involve States, commercial space enterprises and possibly even terrorist organizations. All of these potentially conflicting uses of space give rise to increasing concerns in the media, in governmental statements, and within international bodies.

Given the increase in the number of States and non-State actors that are now active in space, and the increased reliance that the military in many countries have on space capabilities, there are growing concerns about the risk of a conflict in outer space, or incidents involving the use of outer space systems leading to a major confrontation. As space infrastructure grows more vital to global economic, business and strategic systems, the potential of space conflict therefore appears to increase.

The general public remains largely unaware of possible armed conflict in space, even though they might have devastating implications for the space systems of all nations and perhaps even for life on Earth. Therefore, in order to avoid potentially devastating conflicts and to regulate the military activities of States (and non-State actors) in outer space, there is a manifest need to clarify the applicable rules of international law and emerging codes of conduct, particularly rules governing the prohibition of the use of force, as well as the relevant rules of international humanitarian law.

This 4th Annual Manfred Lachs Conference therefore seeks presentations related to the state of the art in current and future military and security technologies and activities, the development of military policies and doctrines, the challenges and risks they represent in terms of space security, the national exploitation of space natural resources, space sustainability, and the peaceful uses of outer space for the benefit of all. In addition, we invite presentations addressing the adequacy and inadequacy of the current rules of international space law, public international law, and international humanitarian law, with respect to conflict avoidance in outer space.

The following questions, while not exhaustive, are indicative of the topics that may be addressed at the Conference

**Session 1: Technological Developments and New Threats**

What are the current and planned future military and security related technologies and activities that pose challenges and risks to space security, space sustainability, and the peaceful uses of outer space for the benefit of all?

What is the international legal status of military or defense-related systems that might be deployed in sub-space/protospace and what are the liability provisions for “authorized” or “unauthorized” uses of sub-space-protospace?

What national laws, policies and doctrines exist relating to space security, space sustainability and peaceful uses of outer space and are these consistent with the current principles of international law related to space, the environment, and national security?

What is the future of space traffic management and control and will this include subspace/protospace?

**Session 2: Technological Developments and New Threats**

What are space weapons and who controls their use/deployment in today’s world?

What are the nuclear, radiological, or particle beam weapons that could be deployed in space in the next 20 years and how might the risks of this occurring be minimized?

Does jamming of and/or cyber-attacks on satellites or space systems constitute a violation of international law, and if so, in what circumstances?

**Session 3: Emerging Strategic Space Issues: Areas of Potential Conflict**

Does the deployment of large-scale constellations of satellites in low earth orbit run the risk of creating “runaway” space debris? If this occurs, who is legally, financially and morally responsible for consequent ecological catastrophes in space? Could a failed large scale deployment be considered equivalent to an unlawful use of force?

If new space systems are developed to service satellites or de-orbit space debris, how can these operations be accomplished without risking space-related conflict?

Are space habitats, settlements, mining camps, facilities on the Moon or other celestial bodies considered legal and who is responsible for their legal integrity/protection?

**Session 4: Conflicts Related to Exploitation of Space Natural Resources**

What are the possible conflicts related to property rights in the exploitation of space natural resources?

Could significant damage to the environment of celestial bodies ultimately be considered a crime against humanity?

What are the rules related to use of force by States and private entities on celestial bodies and what is the actual definition of a “celestial body”? Is there a distinction between a planet, a moon, a comet, an asteroid, a bolide, a meteor, and a meteoroid?

What regulatory mechanisms can or should be adopted to avoid conflicts related to (a) locations for settlements and possible liability; (b) space traffic management; and (c) space safety standards for launch-sites/spaceports and for crews and passengers?

**Session 5: Different Forms of Use of Force**

What space activities short of the use of force may be considered hostile activities or akin to an armed attack?

How do principles of non-intervention and the use of force apply in space and correlatively how do proportionate countermeasures and the doctrine of necessity apply to space based operations?

How can non-State actors be regulated with respect to activities that might give rise to conflicts in space?

Are there legitimate concerns about “space terrorism”, and if so what measures can be taken to address it?

**Session 6: Conflicts in Space and International Humanitarian Law (IHL)**

How do the principles of “direct participation in hostilities” apply to space and terrestrial environments regarding space-focused warfare?

How do principles of neutrality apply (as they relate to the *jus ad bellum* and *jus in bello*) in outer space, given that there are no territorial limits?

Do existing rules/principles relating to air and naval warfare find application to space based warfare and if so, how is this manifested?

How do the basic rules of IHL and target discrimination apply in outer space armed conflict?

How do existing rules relating to specific weapons systems apply to armed conflict in outer space?

**Session 7: The Way Forward**

What substantive rules are needed to govern the conduct of States in the event of an armed conflict in space?

What can the United Nations, its specialized agencies, or other international entities do to alleviate conflicts in space?

What new reforms in space law, regulation, oversight by international organizations, model national laws, codes of conduct, or transparency and confidence building measures would help to alleviate the possibility of future space conflict?

What are the most urgent and achievable forms of Global Space Governance necessary to prevent strategic conflict?

By this Call for Papers, the organizers of the Conference seek papers that, among other things, will discuss and critically analyze the current technical, economic, political, strategic, and legal challenges to potential conflicts in and responsible use of space now and into the future. Papers should be between 3,000 and 4,500 words in length and must specifically and directly address the themes of the Conference.

Interested authors may submit an abstract not exceeding 250 words via e-mail to Maria Manoli at: [mlc.iasl@mcgill.ca](mailto:mlc.iasl@mcgill.ca) by 31 January 2016. The abstract must indicate the precise topic or title of the paper, the author's (or authors') full name(s), full contact details including valid email address, and current institutional affiliation. Please submit your abstract under the following e-mail header: “4th MLC 2016 Abstract – [Author(s) LAST NAME]”. The language of the Conference will be English and as such we will accept only abstracts and papers written in English.

Each submitted abstract will be evaluated on the basis of its technical quality, innovative ideas and relevance to the themes of the Conference. All authors whose abstracts are selected and who proceed to submit duly completed papers by the applicable deadline will be permitted to orally present their papers at the Conference. The Conference registration fee will be waived for authors who, upon meeting the above-mentioned conditions, participate in the Conference as speakers. Suitable and well-written papers will be published in the Proceedings of the Conference. Papers of the highest quality may also be published as part of an edited collection.

**Deadlines**

31 January 2016 Deadline for abstract submission

21 February 2016 Notification to authors

5 April 2016 Deadline for paper submission (“no paper – no podium”)

27-28 May 2016 Conference

Fall 2016 Preparation of Conference Proceedings for publication

For further information on the Conference, please contact Maria Manoli, Institute of Air and Space Law, McGill University, at: [mlc.iasl@mcgill.ca](mailto:mlc.iasl@mcgill.ca)

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| **The 3rd Annual Strategic Space Law Program:** Following the 4th Manfred Lachs Conference, the McGill University Centre for Research in Air and Space Law, and the University of Adelaide Law School (Australia), are organising their 3rd Annual Strategic Space Law Program, to be held at McGill University from 30 May to 3 June 2016. This one-week intensive, interdisciplinary, interactive workshop is designed for lawyers and other professionals in the defence services, international relations, government, international organizations, law firms, consulting firms and industry who are interested in studying space law from a strategic perspective. For more information, please contact Maria Manoli at: [mlc.iasl@mcgill.ca](mailto:mlc.iasl@mcgill.ca) |

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