

**10<sup>th</sup> UNITED NATIONS WORKSHOP ON SPACE LAW**  
*CONTRIBUTION OF SPACE LAW AND POLICY TO SPACE*  
*GOVERNANCE AND SPACE SECURITY IN THE 21<sup>st</sup> CENTURY*  
5-8 September 2016

**Panel 1: International space law and policy development**

**Breaking the geo(political) orbit:**  
*Alternatives means of shaping*  
*law and policy in outer space*

by  
Kuan-Wei Chen ©2016



# Objectives of the 10<sup>th</sup> UN Workshop

- a) To promote understanding, acceptance and implementation of the United Nations treaties and principles on outer space;
- b) To address space governance and the broader perspective of space security, including on norms of behaviour and space policy development;
- c) To consider space law and policy in the context of space economy, space society, space accessibility and space diplomacy;
- d) To study trends and challenges to the progressive development of space law; and
- e) To assess further needs for capacity-building, assistance and outreach in space law and policy.

# Outline

## 2018 “UNISPACE+50” THEME OF STSC, LSC and COPUOS

(Feb 2015) UN Doc A/AC.105/C.1/2015/CRP.30

- “The space agenda is **evolving and becoming more complex**”
- “The development of international mechanisms such as **guidelines, codes and other confidence-building measures are reflective of this new environment**”.
- “Addressing challenges to humanity and sustainable development, protecting the space environment, and securing the long-term sustainability of outer space activities all require further attention”.
- There is a need “for stronger space governance and supporting structures in the future at all levels ....”

### **Breaking the geo(political) orbit:**

1. Global Space Governance Study
2. *Manual on International Law Applicable to Military Uses of Outer Space* (MILAMOS) Project

# Development of law and policy up to 1990s

## Multilateral level



### UN Framework

Conference on Disarmament



UNCOPUOS



UNITED NATIONS  
Office for Outer Space Affairs

Arms control and disarmament

- 5 space law treaties
- space law principles
- GA resolutions
- Guidelines

- Clarify contents of law
  - practice shaping custom

## Regional level



*regionalisation*

Asia-Pacific Regional Space Agency Forum  
AfriSpace?  
Pan-Arab Space Agency?  
South American Space Agency?

## National level

*internalisation*

*localisation*

National space law

National space policy

Top-down approach

## Non-UN Framework

“highly qualified publicists”



- Qualified publicists, experts and stakeholder institutions present to **identify and/or clarify law**

# “space agenda is evolving and becoming more complex”

The current applicable international space law has its **origin in the Cold War politics**. It was developed during the period when space explorations were carried out by only a handful of countries. So far international space law has largely been successful in **maintaining law and order as well as the smooth operation of space activities**, including those by private entities. ...

However, the **inadequacy of international space law has started emerging**, particularly with the development of new space applications, the entry of new actors into the space arena and the exponential growth in the number of space activities.

Bhupendra Jasani and Ram Jakhu, *Commercialisation of Space: Opportunities and Challenges*

Alarmist view of space being “congested, contested and competitive” ?

## LEGAL FRAMEWORK

stated objectives:  
PEACEFUL PURPOSES  
REGARD FOR INTERESTS OF ALL STATES  
BENEFITS OF HUMANITY

...

# “space agenda is evolving and becoming more complex”

## TRENDS, REALITIES and CHALLENGES:

- Ever-growing reliance on outer space (“*dependence*”)
- Ever-increasing number of actors (“*democratisation*”)
- Shift away from governmental to private/commercial undertakings in outer space (“*commercialisation*”)
- Shift of balance of power to rising powers / economies (BRICS) (“*multi-polarisation*”)
- Militarisation and security concerns in outer space (“*militarisation*”)
- Need to address needs and interests of developing countries
- Environmental degradation of outer space
- *Sustainability* of human activity and presence in outer space

After (around) 1990s...

Overlapping, disjointed and confusing...

UN Framework

Multilateral level

Non-UN Framework



UNCOPUOS



- Space law treaties
- Space law principles
- GA resolutions
- Guidelines



Conference on Disarmament

Arms control and disarmament



Telecommunications  
Orbit and radio frequency allocation

Regional level regionalisation

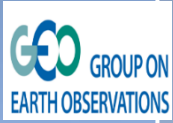


Asia-Pacific Regional Space Agency Forum  
AfriSpace?  
Pan-Arab Space Agency?  
South American Space Agency?

"highly qualified publicists"



"The development of mechanisms such as ISO and other Inter-Agency Space Debris Coordination Committee"



mechanisms such as



HCOC Measures are the new environment  
the Hague Code of Conduct  
COMMERCIAL SPACEFLIGHT FEDERATION



internalisation National level

localisation

National space law

National space policy



# Through the lens of lawyers...

“...some of the principles and definitions inherited from the past have become too narrow, highly inadequate and **thus require reformulation, or even [...] replacement by new ones adapted to new conditions**”

Manfred Lachs

Lawyers love (the idea of) the **rule of (*international*) law**:

- ... to **regulate and govern** the development of human activity,
- ... to ensure outer space be used for peaceful purposes in an **orderly and organised** way,
- ... strong believe in the ability of States to come together and **work toward a common good**.

RULE OF LAW

TRANSPARENCY

PREDICTABILITY

STABILITY

ENFORCEABILITY

DURABILITY

- If there is no law, let's find or create it!
- If there is law, let's clarify, reformulate and apply it!



## Need for “stronger space governance and supporting structures in the future at all levels”

### TRENDS, REALITIES and CHALLENGES :

- Existing laws are outdated and not updated
- Gap (“**legal lacunae**”) exists between regulation and nature of activities and actors existing today and that are developing
- New laws are difficult, if not impossible to adopt
- Wide range of intuitions, standards, norms and guidelines exist that are not-strictly legal
- “soft”, non-binding guidelines undermine **rule of law and legal certainty**
- Proliferation of forums outside the traditional UN framework
- Deadlocked on vital issues that need instant clarification and dialogue to prevent misunderstanding, suspicion, and potential for conflict, *particularly security and strategic issues*

# Breaking the geo(political) orbit: *What way forward?*

**“Global problems need global solutions that are sought and implemented through global participation”.**

- Introduce initiatives that are non-State-centric and break away from geopolitical interests
- Involve a **spectrum of experts and stakeholders** from all disciplines and all parts of the world
- Experts and contributors participating in their **personal capacities**
- Appeal to **common interests and united by common concerns**
- Agreement through consensus



Global Space  
Governance Study

*Manual on International Law Applicable  
to Military Uses of Outer Space  
(MILAMOS) Project*

# Origins of the Global Space Governance Study



2<sup>ND</sup> MANFRED LACHS INTERNATIONAL CONFERENCE  
ON GLOBAL SPACE GOVERNANCE  
May 29-31, 2014, Omni Mont-Royal Hotel, Montreal, Canada

<https://www.mcgill.ca/iasl/events/manfred-lachs-conference-2014>

Space lies at the nexus of security, strategic stability, and scientific, as well as technological, advancement. ... The emergence of a **burgeoning private (i.e. non-governmental) space sector** and the massive **environmental repercussions of space debris** are just some of the many issues that have challenged the very foundations of the existing model of ***global space governance.***

*Prof. Ram Jakhu (October 2013)*

- 120 experts appearing in their private capacities
- 22 space-faring and non-space-faring nations
- Representatives from intergovernmental institutions, from national (space) agencies, civil society, academia, governments, armed forces, the private sector and other stakeholders



# Montreal Declaration 2014



2<sup>ND</sup> MANFRED LACHS INTERNATIONAL CONFERENCE  
ON GLOBAL SPACE GOVERNANCE  
May 29-31, 2014, Omni Mont-Royal Hotel, Montreal, Canada

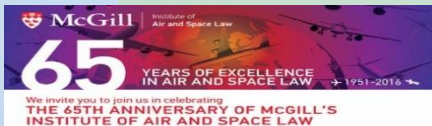
- **prepare for and convene an international conference** to deliberate and agree upon recommendations to governments and relevant international organizations aimed at the establishment of a global governance regime for peaceful and sustainable space exploration, use and exploitation for the benefit of all humankind;
- **global participation by all key stakeholders** (i.e., state and non-state actors) including: international intergovernmental organizations; relevant regional organizations; non-governmental organizations; appropriate state ministries (departments) and space agencies; academic institutions; appropriate commercial enterprises; and concerned individuals;
- Institute of Air and Space Law to take the lead in initiating, completing and broadly distributing through all forms of media, **an international interdisciplinary study that examines drivers of space regulations and standards**

PRELUDE to UNISPACE + 50

!!Save the date!!

**Second Global Space Governance Conference**  
will be taking place  
4-6 MAY 2017

**in association with UNOOSA**



# Definition of global governance

“Global governance is a wide term that is **open to multiple elucidations and interpretations**”.

In short, **global space governance** refers to:

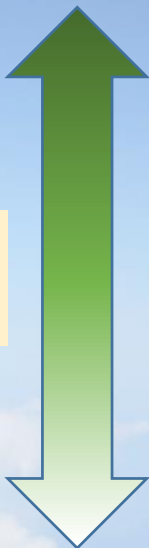
“the international action or manner (process) of governing or regulating space-related affairs or activities” ... “the entirety of the mechanisms and processes and [including] their formulation, compliance monitoring and enforcement”.

The concept encompasses

**a wide range of instruments, institutions and mechanisms** discussed, formulated, and implemented at **various international fora**, including:

- international and/or regional treaties, agreements, and regulations;
- model national laws and regulations;
- technical standards and procedures;
- codes of conduct, “rules of the road”, and guidelines; and
- transparency and confidence building measures.

*Spectrum  
of “binding-ness”*



# GLOBAL space governance

- **Global...** in the sense it encompasses concerns and interests of the world and humanity
- **Global...** also in terms of the perspective; taking a **interdisciplinary and inclusive “satellite’s eye view”** and analysis of *issues, process, challenges and opportunities*

## GLOBAL SPACE GOVERNANCE

### (quasi) LEGAL FRAMEWORK



# Range of topics covered in the GSG Study

**“The great void in new paths to global governance of outer space was an interchange of knowledge, ideas, and evolving problems in space development which must come from effective communications between academia, governments, international organisations, NGOs, industry, private space sector, start-ups as well as individual scientists, engineers, space agencies, commercial space interests and entrepreneurs, and space lawyers”.**

- satellite telecommunications;
- remote sensing and Earth-observation;
- satellite navigation and tracking (i.e. GNSS) space-based solar power;
- space launch systems;
- human space flight;
- space mining and utilization of space resources, cosmic hazards and planetary defense;
- global space environmental issues,
- education and capacity-building for space development;
- global space security;
- Human migration and colonisation of space;
- Sustainability of outer space etc. etc.

# Goals of the GSG Study

“Many will say the goals are way too complex, lofty and ill-defined to succeed, *but isn't it at least worth a try?* In light of the minimal global progress made by conventional international negotiations, it seems that now is the time to explore new mechanisms to cooperate in space.

*Ram Jakhu and Joseph Pelton*

1. Examine the changing global economic, political and social conditions and space infrastructure dependence;  
(“*multi-polarisation*”; “*commercialisation*”; “*democratisation*”; “*militarisation*”)
2. Identify and assess all known **space threats and risks**;
3. Examine **space opportunities** and the need for the sustainable and peaceful use of outer space, and the exploration and exploitation of space for the benefit of all humankind;
4. Identify **safety, technical and operational gaps** to be filled; and
5. **Recommend appropriate space governance** agreements, arrangements, regulations, standards and appropriate institutional mechanisms, innovations and **practices relevant to current and emerging space activities**.



# Global Space Governance: a four part study

## *Part I*

- Definition, context and importance of global space governance

## *Part II*

- Evolution, current status and future trends of space activities
- **(in)adequacy** of the current governance system
- **Recommendations and actions**, and possible fora/forum to improve global space governance for benefit of humankind

## *Part III*

- New and emerging challenges since the 1970s

## **Part IV**

- Conclusions, consolidated findings and recommendations for appropriate future global space governance system

# Influence of the McGill-led Global Governance Study?



Theme 2: Report of the Committee on the Peaceful Uses of Outer Space, UN Doc A/71/20 (2016)

Legal regime of outer space and global space governance: current and future perspectives

OBJECTIVE:

“Promote the universality of the five United Nations treaties on outer space. **Assess the state of affairs of those treaties and their relationship with other relevant international instruments, such as principles, resolutions and guidelines governing space activities.** Analyse the effectiveness of the legal regime of outer space in the twenty-first century, with a view to identifying areas that may require additional regulation”.

... (b) Studying potential **future legal and institutional initiatives** intended to ensure that outer space is explored and used for peaceful purposes and that access to outer space remains open and free for the benefit of all countries, **in order to ensure that international space law is a relevant part of global space governance**

!!Save the date!!

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Centre for Research in Air and Space Law  
Centre de recherche en droit aérien et spatial



THE UNIVERSITY  
*of* ADELAIDE

*Manual on International Law  
Applicable to Military Uses of Outer Space  
(MILAMOS)*

# Need for “stronger space governance and supporting structures in the future at all levels”

RECALL...

## TRENDS, REALITIES and CHALLENGES :

- Existing laws are outdated and not updated
- Gap (“**legal lacunae**”) exists between regulation and nature of activities and actors existing today and that are developing
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## TRENDS, REALITIES and CHALLENGES:

- Serious deadlock on the matter of military uses of outer space
- a dire need to clarify applicable rules of international law to **prevent future conflicts** in outer space and **minimise the detrimental effect conflict** will have on civilians and the world
- Various forum and means to address issue of space security and what happens in the outbreak of armed conflict:
  - *PAROS* resolutions since the 1980s
  - *Hague Code of Conduct* (2002)
  - *Draft Treaty on the Prevention of Placement of Weapons in Outer Space* (2008/2014)
  - *No First Placement of Weapons* (2014)
  - *Transparency and Confidence Building Measures* / joint First and Fourth Committee Meeting in Oct 2015
  - *International Code of Conduct* (2014); Multilateral Negotiations in NYC (July 2015)
  - *Guidelines for the Long-Term Sustainability of Outer Space* (2016)



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## Manual on International Law Applicable to Military Uses of Outer Space

### Our Mission

To develop, within a period of three years, a manual that objectively articulates and clarifies existing international law applicable to military uses of outer space, including the conduct of hostilities in outer space and military activities in periods of tension.



### Our Vision

To contribute to a future where all space activities are conducted in accordance with the international rules-based global order, without disrupting, and preferably contributing to, the sustainable use of outer space for the benefit of present and future generations of all humanity.

### MILAMOS Project launch, May 2016



# Stated purpose of manuals

## The Law of War on Land 1880

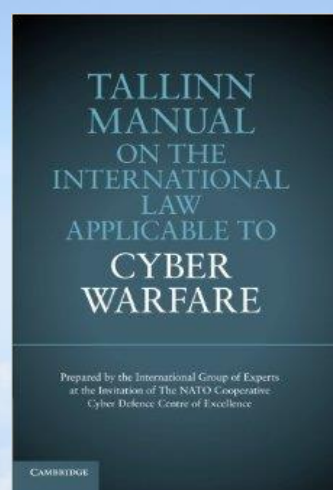
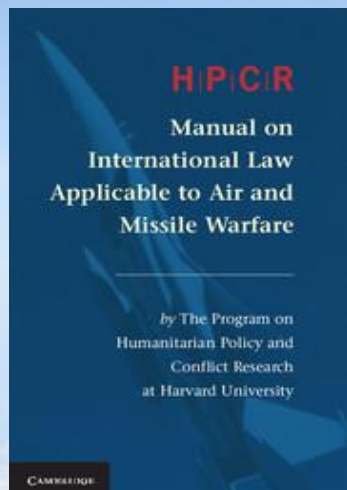
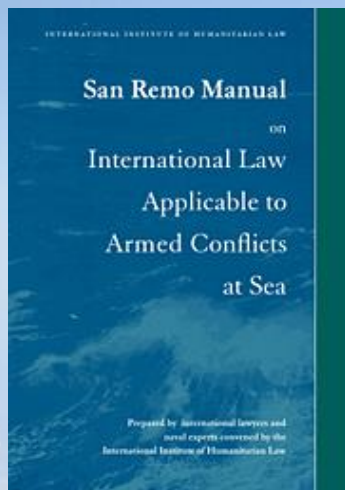
### Institute of International Law

- “does not propose an international treaty, which might perhaps be premature or at least very difficult to obtain” **Break geopolitical orbit**
- “a ' Manual ' [is] suitable as the basis for national legislation in each State....” **Clear source of law for localisation / internalisation**
- “stating **clearly and codifying the accepted ideas of our age** so far as this has appeared allowable and practicable”. **Not controversial**
- “A positive set of rules, ... [prevents] the unchaining of passion and savage instincts ...[strengthens] the discipline ... by keeping them within the limits of respect due to the rights of humanity.”

# What is a manual ?

- A collectively agreed text produced by international group of experts
- Experts act in personal capacities
- Manual contains list of black-letter rules, with commentaries
- Based on *lex lata* reflected in customary international law
- Brings together applicable law on a particular topic

**MILAMOS will provide a neutral, objective and accurate statement of the applicable law**





# Success of a manual

- A statement of the **law as it is** (*lex lata*)
- Identify rules that are **customary**
- Identify where **gaps in law** exist
- Rules should **reflect and be supported by State practice**
- Benefit from discussions with and input from States
- Provide **neutral, objective and accurate** statement of the applicable law
- **Precise enough to avoid ambiguity, open enough to remain relevant!**

# Support and involvement for the Project

- Founding Institutions **McGill University** Centre for Research in Air and Space Law and **University of Adelaide** Research Unit on Military Law and Ethics. McGill University hosts its secretariat.
- Recognition and support from the **Government of Canada**.
- Financial support from the **Erin JC Arsenault Fund** at McGill University, the **Social Sciences and Humanities Research Council of Canada**, and **ROOM**, the Space Journal;
- Endorsed by the **International Committee of the Red Cross (ICRC)** and the **Union of Concern Scientists (UCS)**;
- Strong interest from Chinese universities, and an Indian security research centre;
- Strong show of interest from **defence forces of several countries**.
- Strong interest in participation by some world's leading technical and legal experts

# Composition of Experts and Contributors

- Dr. Dale Stephens (University of Adelaide)- *Editor-in-Chief*
- WCDR. Duncan Blake (Royal Australian Air Force)- *Deputy Editor-in-Chief*

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- Dr. Jonathan McDowell (Harvard-Smithsonian Center for Astrophysics)
- Mr. Brian Weeden (Secure World Foundation)
- Mr. Frank de Winne (European Space Agency)

# Conclusion

“...is it not true that we face here fascinating issues of law, a new world or worlds far beyond anything man has ever reached for?”

Manfred Lachs, *The International Law of Outer Space* (1964)

- Interesting and challenging times in the domain of space activities
- Law and policy needs be able to **bridge gaps** with reality, trends, technology and developments and properly respond to challenges and opportunities
- Traditional forum may prove to be cumbersome and longwinded to achieve agreement
- **Common objectives and interests can be a basis** for consensus
- Need for **innovative, interdisciplinary, global approach to global issues, opportunities and challenges**
- Global Space Governance Study and MILAMOS Project are prime examples of such initiatives



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