

# Dark and Quiet Skies and International Space Law

Dr. Tanja Masson-Zwaan

UN/SKAO Dark and Quiet Skies for Science and Society Workshop

11 December 2025



Universiteit  
Leiden  
The Netherlands



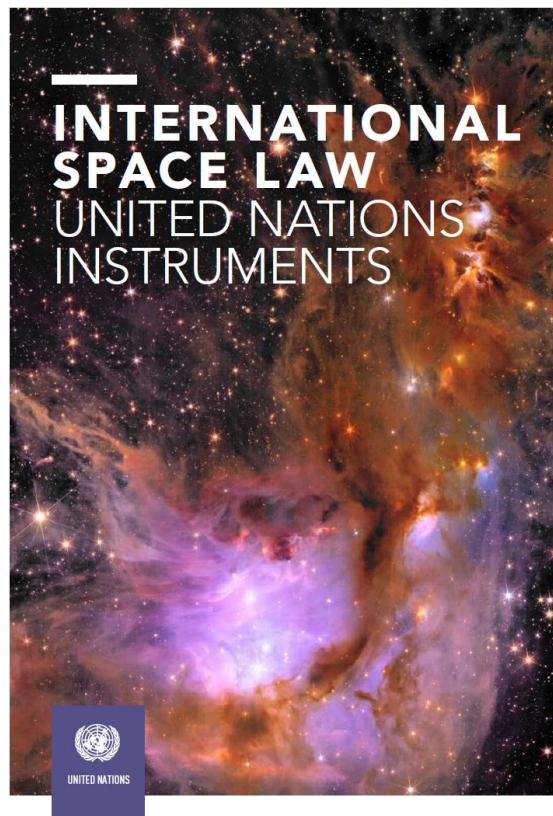
# Space law: why & how?

- Post-cold-war:
  - Strong desire to avoid a space weapons race
  - Share benefits, international cooperation
  - But also, hazards, risks, damage, interference
- Political commitment of all states
  - UN Charter & international law should apply
- UN COPUOS, created in 1958
  - Scientific & Technical Subcommittee
  - Legal Subcommittee
  - Main Committee
  - Decision-making by **consensus**



# Space law: what?

International space law governs the activities of States to, in, and from outer space



Outer Space Treaty 1967



Rescue Agreement 1968



Liability Convention 1972



Registration Agreement 1975



Moon Agreement 1979

+ several other 'soft law' instruments  
Resolutions, guidelines...

# Space law: main principles

Freedom of  
Exploration &  
Use

Non-  
Appropriation

International  
Law Applies

Peaceful  
Uses

Cooperation,  
Assistance,  
Due regard

State  
Responsibility

State Liability

Registration &  
Jurisdiction

Commercial  
Use

# Private space activities: what do the treaties require?



Authorization/supervision

Art. VI OST



Third party liability

Art. VII OST & LIAB



Registration

Art. VIII OST & REG

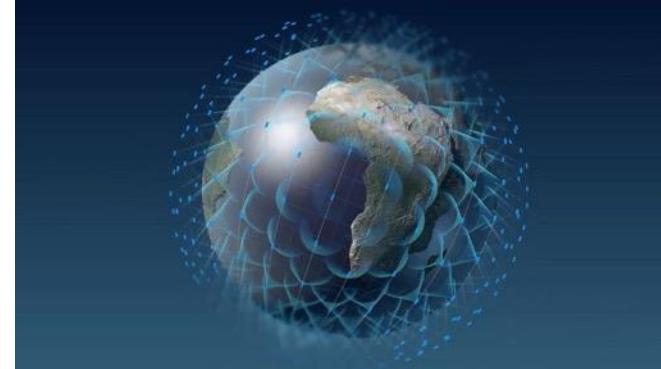
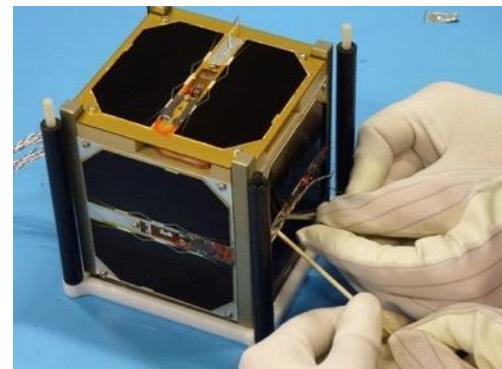


Due regard/harmful interference

Art. IX OST

# The advent of ‘NewSpace’

- New companies and ventures that work independently of governments and traditional major contractors
- Faster, better, cheaper access to space and spaceflight technologies
- Driven by commercial, not political, motivations
- Opportunities & challenges

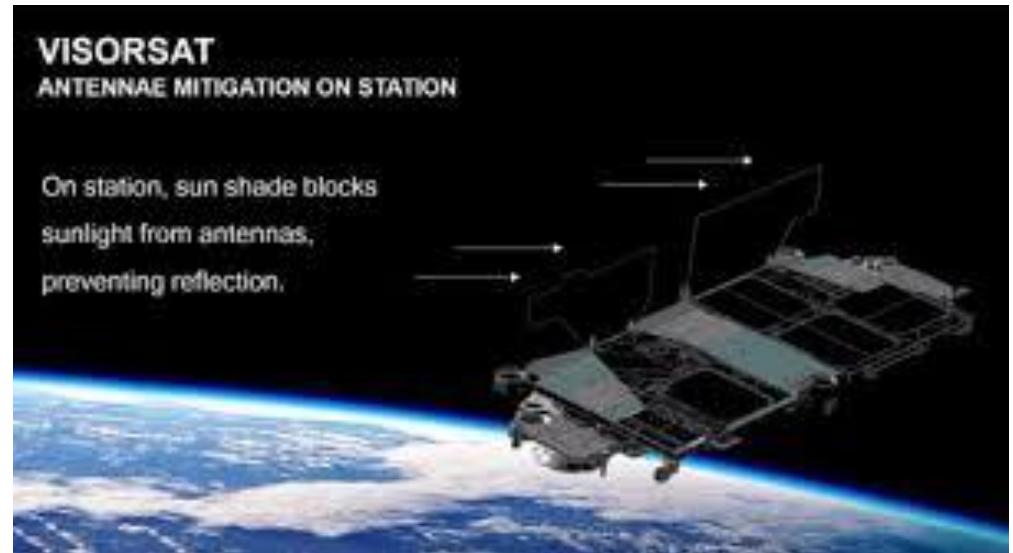


# Constellations vs. Astronomy



The problem

22:55 21 24/05/19  
0933.5 0933.5



The solution?

# Astronomy & large constellations: Outer Space Treaty (1/2)

- **Art. I:** Freedom of use
  - No hierarchy or prioritization
  - Includes freedom of scientific investigation
  - Benefits and interests of all countries; province of all mankind
- **Art. II:** Non-appropriation
  - Operating a constellation is not appropriation
- **Art. III:** International law applies
  - International environmental law
  - Human rights law?
- **Art. VI:** State Responsibility
  - Authorization & continuing supervision by appropriate State, usually by licensing
  - States must take more, competing interests into account
  - Ex: Italian law of June 2025

# Astronomy & large constellations: Outer Space Treaty (2/2)

- **Art. VII:** Liability for damage
  - Concept of damage does not cover disturbance of astronomical observations
  - Risk of collisions; need to prove fault
- **Art. VIII:** State of registry retains jurisdiction & control
  - How to register thousands of small satellites?
- **Art. IX:** International cooperation / due regard for interests of other states, avoid harmful interference
  - If interference, consultations
  - Constellations cause harmful interference with astronomy
- **Art. XI:** inform the UN, will disseminate
  - Can be used to create visibility for astronomy!
- **Also:**
  - UN Debris mitigation guidelines (2007)
  - UN guidelines on the long-term sustainability of space activities (2019)

# Conclusion

Space law provides useful tools

Let's use them more and better



# Thank you

[t.l.masson@law.leidenuniv.nl](mailto:t.l.masson@law.leidenuniv.nl) - [www.iiasl.aero](http://www.iiasl.aero)



Universiteit  
Leiden  
The Netherlands

**IISL**  
INTERNATIONAL INSTITUTE  
OF AIR AND SPACE LAW