

London Institute of Space Policy and Law

CERTIFICATE COURSE IN SPACE LAW AND POLICY

Lecture 3:
Sources of Space Law

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Presenter profile

- Consultant and managing partner, Systemics Network International
- Visiting professor for space policy and law K.U.Leuven and for information society law King's College London
- Author, *A New Force at a New Frontier*, Cambridge (1997)
- Former ESA official
- Former research fellow, Max Planck Institute for Public International Law, Heidelberg
- PhD Cambridge; LLM Yale; LLB London; barrister; admitted at French-speaking bar, Brussels

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What we will cover

- Public international law and its sources
- General context and framework pertinent to space activities
- Public international space law: UN regime
- Space law as developed in international cooperation
- Current issues

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“International law”

- **Public** vs. private international law
- Sources (and “evidences”) identified in Art. 38 ICJ Statute (first, international conventions *on* rules, custom, general principles; then, judicial decisions and respected teachings)
- Treaties – mark consent; *pacta sunt servanda*
- Relationship between “practice” and “law”
- Growing importance of treaty law; aim of progressive codification; major post-war effort on law of the sea; strong growth of international organization; UN mainstay

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A working definition of space law

*“The set of **rules** applicable to activities conducted in outer space – including the use of the space environment – and to the status of objects, persons and transactions there, as well as to space operations in general.”*

Madders, Thiebaut and Zinck, *A Coursebook on Space Law* (2004)

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Public international space law

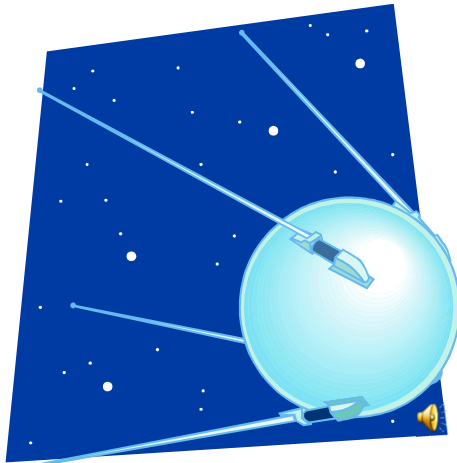
- Centrality of UN – its space treaties regime, Principles; UNCOPUOS and UN OOSA
- 1967 Outer Space Treaty
- 1968 Rescue Agreement
- 1972 Liability Convention
- 1975 Registration Convention 1979 Moon Agreement
- Principles adopted by UN General Assembly and related understandings

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Fine. But what is it in real life?



- It all started on 4 October 1957 . . .
- USSR showed space was a **lawless**, and useful, **strategic** environment
- Initial concerns were: **security**, access & use, information, hazards

Addressing these concerns became an international **public order** issue

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Situating “space law” regime

- Regime for **Fourth Environment**, as the Law of Sea Convention provides for Second
- But space regime at rudimentary, early level of development and with unique features
- Clear relations with other regimes, e.g. air law and telecommunications, but limited
- Antarctica provided a treaty example in finding approach, but example imperfect in scope



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The UN and a “core” regime

- Concerns were bipolar but also global
- First UNGA resolution (1148 XII) – **14.11.1957**
- Intensive study & talks led to UNGA 1348 (XIII) and UNCOPUOS in 1959
- First norms emerged 1961-63, at speed of space race

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The Lawyers

- Making law in this period was an intellectual challenge to legal community
- Great Minds responded – McDougal & Vlasic, Bin Cheng, & others
- Also key governmental professionals – Schachter, Fawcett, Vereshchetin, Galloway, who participated in delegations at UN and debate in associations
- In background, further teams investigated policy and strategic implications, e.g. RAND
- N.B. Different schools (functional, formalist, idealist)

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The 1967 Outer Space Treaty

(For sources – www.oosa.unvienna.org)

- Exploration & use of “outer space” (undefined) for *benefit and in interests all countries; province all mankind* (Art. I)
- Free for exploration and use by all States (Art. I)
- No national appropriation (Art. II) or environmental harm
- No nuclear weapons or WMD in orbit/stationed (Art. IV)
- Non-militarization of Moon & other celestial bodies
- Astronauts = envoys of mankind (Art. V)
- States responsible for national space activities (Art. VI)
- States liable for damage by their space objects (Art. VII)
- Registry of objects; “jurisdiction and control” recognized

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Key substantive elements

- Basic regime for transit, status, public order, uses & consequences, environment
- Freedom for exploration and use by all States (Art. I) vs. obligation to have “due regard” to **all** other States’ interests (Art. IX)

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Systemic elements in Outer Space Treaty

- **International law** applies, i.e. for peace & security (Art. III)
- **“Cooperation”, consultation & transparency** are significant elements (cf. Arts. IX and XI) spurring development
- **A basic order, supplemented** by 1968 Astronauts Agreement, 1972 Liability and 1975 Registration Conventions, and then 1979 Moon Agreement
- Since then: “principles”, “declarations”, “guidelines”, consensus understandings – texts of **practical** and/or **interpretative** significance

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“Jurisdiction and control”

- OST Art. VIII: extension of national legal systems
- Substitute for territorial “sovereignty” in space
- Emphasis on “jurisdiction” maintains personal jurisdiction competence as well in relation to property and objects
- “Control” would be much more difficult concept *if taken alone* because of possibility for multiple remote control operations involving space objects
- Cf. Usage in US Inventions in Outer Space Act (and the need for adoption of an interpretation to respond to international objections)
- Rather, this must be read as a *phrase* – a conjunctive notion
- N.B. The notion does not resolve problems of multiple claims to exercise or possible loopholes

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International cooperation – an OST aspiration or a reality?

- Striking & early feature of space activities
- Two forms: institutional and by project
- Extensive NASA practice
- European space efforts largely cooperative
- Joint missions involve issues of status, funding, resources, management, data
- ISOs have now given way to corporations
- Dynamic of sharing but retaining critical capability (albeit less with space science)

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Fruits of cooperating

- Space science
- Space applications
- Space transportation systems
- Space infrastructures
- Ground facilities and networks
- Data exploitation
- Industrial structures
- Commercialization



The International Space Station – *NASA image*

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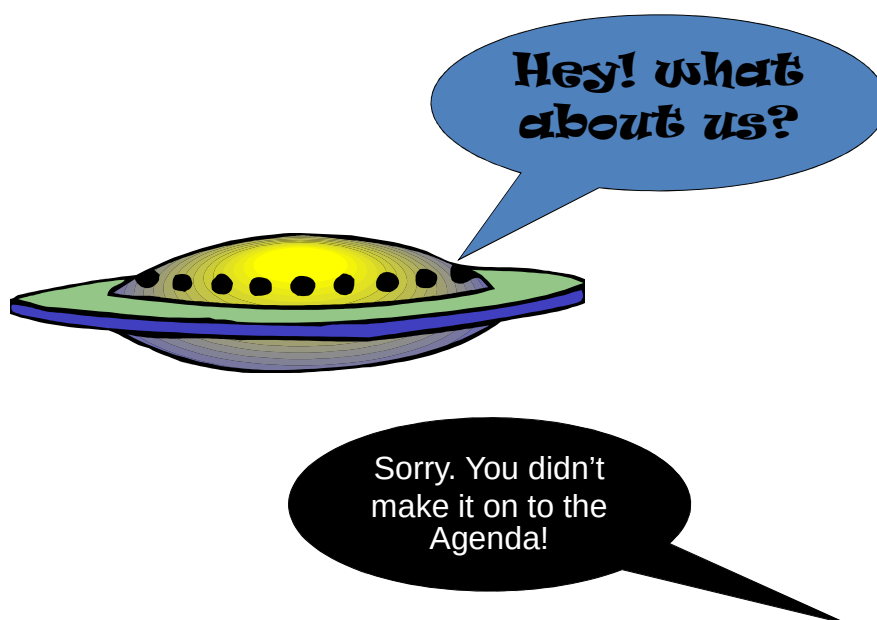
Examples of cooperation

- ESA Convention is leading example, reflects OST terms: e.g. “peaceful purposes”, & is full-scale IGO
- ISOs were first frameworks for applications
- Eumetsat is continuing framework of “public service” character; interfaces with WMO etc.
- Diplomatic structures not only means – ESA promoted Arianespace industrial consortium
- Recipe for success is strong interdependence and close knit relations in other areas
- Cf. International Space Station IGA, ISPM arrangements

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1968 Rescue Agreement

- Applies to astronauts AND objects
- Picks up on OST Arts. V & VIII
- States to take all possible steps to rescue and assist astronauts in distress & promptly return them to launching State
- States **must** return space object & parts

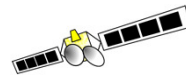
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1972 Liability Convention

- Applies to damage caused by space objects to another “State”
- Dual standard of liability
- Joint and several liability (recoverability)
- Concept of “launching State” vital (read with Arts. VII **and** VI OST)
- Procedures for settlement of claims



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“Launching State” situations

1. Launch on territory of State A

2. Launch from facility of State A (e.g. ship, marine platform, aircraft)

3. Launch by State A outside State A and not on State A facility

4. Procurement by State A of launch on territory or from facility of State B

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Sea Launch



Images: Sea Launch. Platform is converted oil rig.



30 January 2007: A Ukrainian-produced Zenit 3SL launcher explodes. Inside is an SES New Skies comsat payload (NSS 8). The launch took place on the Equator on the high seas, east of Christmas Island. Sea Launch is a consortium of Boeing (US), RSC Energia (RUS), SDO Yuzhnoye/PO Yuzhmash (UKR), and Aker ASA Group (N). It relies on Chase Manhattan (US) loan capital. New Skies is a Bermuda/Dutch subsidiary group of SES (LUX).

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UNCOPUOS reflections

- Concern that there must always be a State that can be identified for liability purposes
- Registration Convention strengthened this regime
- Sea Launch may tend to undermine via “flags of convenience”
- UNCOPUOS WG conducted review in 2000-2002
- Recommended more national lawmaking, regulation of mission liability by agreements, harmonization of practices as guidance for implementation

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The role of licensing

- Under OST Art. VI, requires compliance also with Art. VII
- UK and Swedish national space laws apply on national territory and to nationals outside territory, implying concurrent prescriptive jurisdiction where relevant activity occurs in another State’s territory
- Licence is comprehensive and requires insurance, reporting; may allow recourse

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1975 Registration Convention

- Applies to space objects and relates to OST Art. VIII and Liability Convention
- Depends on national registers and central compilation register at UN
- Only one State of registry per object
- Standard registration criteria; markings
- Duty to update data upon de-orbit

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1979 Moon Agreement

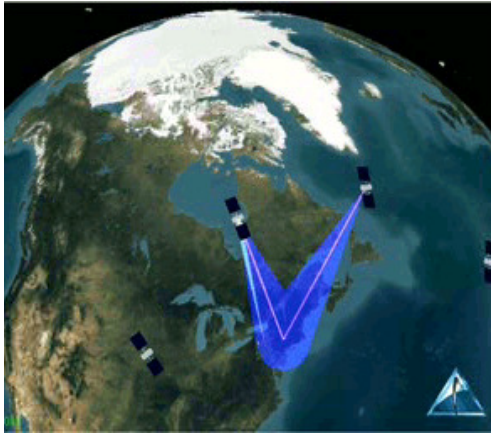


- Controversial agreement; US decided not to join and then USSR
- Applies to Moon, its orbits, cislunar trajectories and, pending new norms, other non-terrestrial bodies
- Moon to be used for “exclusively for peaceful purposes” while all activities to be “with due regard to corresponding interests” of others; non-interference requirement; stations planning
- Exploration and use = “province of all mankind”, benefit and interests of all countries, future generations, progress, cooperate
- Samples “at disposal” of collector, % available to others; consumables
- Information regime, with reports to UN Secretary General. Also inspection regime and role of UN Secretary-General in case of disputes
- Proclaims Moon and its natural resources in place “**common heritage of mankind**”; international regime **to be set up** to govern exploitation when about to become feasible
- Avoidance of disruption of lunar environment “balance”; preserves

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Principles adopted at UN



- DBS: Res.37/92 of 10.12.1982
- Remote-Sensing: Res.41/65 of 3.12.86
- NPS: Res.47/68 of 14.12.1992, with a safety framework developed with IAEA adopted 2010
- Cooperation: Res. 51/122 of 13.12.1996
- GSO use: Annex to Legal SC Report, 20.4.2000

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Additional items at/for UN

- Delimitation of outer space
- Space debris/SSA
- Astronauts
- Natural disaster protection
- A World Space Organization?
- Mars and Moon

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Selected readings

- M.S. McDougal, H.D. Lasswell and I.A. Vlasic, *Law and Public Order in Space* (1963)
- J.E.S. Fawcett, *International Law and the Uses of Outer Space* (1968)
- C.Q. Christol, *The Modern International Law of Outer Space* (1991)
- Wassenbergh, *Principles of Outer Space Law in Hindsight* (1991), Part II
- F. Lyall and P.B. Larson, *Space Law: A Treatise* (2009)
- ESA-ECSL bibliography (at www.esa.int)
- Von der Dunk, "Loopholes in liability? Aspects of liability for damage sustained in the course of satellite telecommunications activities", in Rapp, *Telecommunications & Space Journal* (1995) 153
- M.J. Petersen, *International Regimes for the Final Frontier* (2005)
- F. Tronchetti, *The Exploitation of Natural Resources of the Moon and Other Celestial Bodies: A Proposal for a Legal Regime* (2009)
- Links:
 - www.permanent.com/archimedes
 - www.asil.org/spacebib.htm
 - www.iafastro.com/iisl/iisl_gar.htm