The unique SCTL program at the University of Nebraska-Lincoln

Prof. Dr. Frans G. von der Dunk
Harvey & Susan Perlman Alumni / Othmer Professor of Space Law
University of Nebraska-Lincoln
Director, Black Holes B.V. space law & policy consultancy

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The UN Model Curriculum

- ◆ Main rationales for inclusion of law
 - Law important tool in supporting beneficial uses of space & limiting negative effects of usage of space
 - → Leaders in the field governmental/political, operational, technical & scientific need fundamental understanding...
 - Of what the law in general requires/prohibits/allows/stimulates
 - Of how law 'operates' & can be used as a supportive tool

 Nebraska Law

> The structure of the Curriculum

- 1. Basic concepts of international law & space law
 - Relationship between international law & national law, between general international law & specific space law
- 2. Remote sensing, GIS, meteorology & climate change activities
- 3. Satellite communications
- 4. GNSS



SWOT analysis of Curriculum (1)

- Strengths
 - Allowing non-lawyers understanding of 'the law'
 - Allowing focus directly on activities relevant for participants (at least for 3 major sectors)
 - Baseline approach allowing for extensions
 - Availability of large network of law professors for teaching various subjects & various angles



SWOT analysis of Curriculum (2)

- **♦** Weaknesses
 - Neither comprehensive nor exhaustive → risk that participants think curriculum in itself is at all times sufficient for the purpose
 - Depending upon awareness at high level of potential customers of importance knowledge of the law & how it works
 - Limited interactivity by necessity



SWOT analysis of Curriculum (3)

- Opportunities
 - To cooperate with other institutions, making space law teaching more efficient & internationally relevant
 - To allow domestic experts/academics in general law to become familiar with/specialize in space law
 - To create useful networks for later use/support



SWOT analysis of Curriculum (4)

- **♦** Threats
 - Lack of interest/money for making it work
 - → Risk of going for cheapness rather than quality
 - Lack of possibilities for/interest in national absorption
 & building of domestic capability in the *legal* realm



The UNL SCTL program cluster

- ◆ Integrates the law & its broader environment; theory & practice; past, present & future
- ◆ Targets both lawyers & non-lawyers, offering some level of tailoring for specific interests
- ◆ Targets public & private, commercial & criminal, military & civil law
- Stimulates interaction of participants



Unique combination...

- ◆ Space law with telecom law
 - No space activities possible without telecommunications; telecommunications represents largest space sector (at least commercially)
- ◆ Space law with cyber law
 - Cyber issues increasingly relevant in space as well
 - Conceptual comparisons illuminating
 - Attribution & limitations to sovereign control



Research facilities

- ◆ 'Classic' library, part of network of US law school libraries
- ◆ Access to on-line repositories
- Digital Commons at
 http://digitalcommons.unl.edu/spacelaw/
- ◆ Alums & network available for specific issues



Main programs (1)

- 1. LLM in Space, Cyber & Telecommunications Law
 - 1. In-residence: 1 year, pre-career, post-law school
 - 2. Executive on-line: 2+ years, in-career, requires law degree / equivalent experience
 - Mandatory part covers three pillars, beyond that some specialization is possible (incl. thesis)
 - 3. For smart students: concentration as part of law study



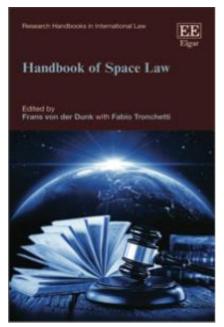
Main programs (2)

- 2. Certificate in Space, Cyber <u>OR</u> Telecommunications Law
 - Elements respective pillar LLM program
- 3. MLS in Space, Cyber & Telecommunications Law
 - For non-lawyers: tailored version of LLM program
- 4. JSD in Space Law
 - Essentially the European-style Doctorate



Teaching format space law

- Handbook of Space Law, other materials & individual hand-outs
- ◆ Slides with text & discussion points
- Class discussions
- Presentations students on assignments
- Exam: open questions / paper





Definition of space law

- ◆ 'Every legal regime having a significant impact, even if implicitly or indirectly, on at least one type of space activity'
 - UN space treaties & UNGA Resolutions
 - *Ad hoc* space agreements (multi- & bi-lateral)
 - General international law, incl. UN Charter
 - Other legal regimes: telecoms, IPR, trade, EU, security
 & arms control, export controls, etc. etc.

 Nebraska Law

UNL space law curriculum (1)

- ◆ Researching space law
 - Relationship space law with international law more broadly speaking & with telecommunications law
 - Availability of research materials & data: primary documents (treaties, resolutions, statutes, regulations, etc.) & secondary literature (expert writings)
 - Approach to research projects
 - Assigned exercise



UNL space law curriculum (2)

- ◆ Space law (= international space law)
 - UN space treaties & UNGA Resolutions
 - Military uses of space & space technology
 - Launching & various space applications
 - Manned spaceflight
 - Space debris & environmental issues
 - Dispute settlement



UNL space law curriculum (3)

- ◆ International satellite communications law
 - Satcom as special area within telecom
 - ITU regime: frequencies & orbits
 - UNGA Resolution on DBS
 - WTO regime: trade in services
 - Satellite IGOs & their privatization



UNL space law curriculum (4)

- ◆ National space law
 - Focus on handling private commercial space sector
 - International framework: Arts. VI-VIII, OST; Liability
 Convention & Registration Convention
 - Some two dozen national space legislations...
 - ...and background policies & histories
 - EU space law (= special regional legislation) ←→ ESA



UNL space law curriculum (5)

- ◆ Space and satellite business law
 - US commercial space history & policy
 - Launching, satellite operations, manned spaceflight & space mining in US context
 - Roles & responsibilities US federal agencies
 - Institutional interaction NASA & other federal agencies with commercial sector
 - Business plan development



UNL space law curriculum (6)

- ◆ Domestic spectrum law & policy
 - Includes satcom as special area within telecom
 - US law & policy on spectrum allocation & assignment
 - Licensed versus unlicensed spectrum
 - Spectrum auctions



UNL space law curriculum (7)

- ◆ National security space law
 - Legal issues related to new and emerging space technologies
 - Key space arms control issues
 - US national security space strategy & military space doctrine – as reflected in law & regulation
 - International law governing military uses of space and space weapons & contemporary challenges

UNL space law curriculum (8)

- ◆ Export control law: ITARs
 - US export control law & impact on space industry & trade
 - EARs & ITARs
 - Ongoing efforts at reform



More information...

• ... at http://law.unl.edu/spacecyberlaw/



Lessons to be learned?

- ◆ Take broad & comparative approach to space law
- ◆ Multiplicity of teachers = variation of view points
 space law still very much 'under construction'
- ◆ 'Practical' assignments for participants & interactive formats excellent educational tools
 - Moot court participation Manfred Lachs

