

The Recent Trends of International / National Space Law Systems

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1



Introduction

- Space law = public & international law
 - Outer Space Treaty, Liability Convention & Registration Convention
 - States 'makers & breakers' of space law
 - ↔ Legal status IGOs
 - ◆ Responsibility ultimately still with member states
 - ◆ Liability also ultimately still with member states
 - ↔ Legal status private sector?
 - ◆ Hardly even *mentioned*
 - ◆ Same story with responsibility & liability



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2



Private sector involvement

- From subcontracted builders to space entrepreneurs
 - Satellite communications; launching; satellite remote sensing; private spaceflight
 - Requiring control (& appropriate stimulation)
 - ➔ National authorisation / licensing system
 1. Ensuring proper implementation state responsibility
 2. Ensuring proper implementation state liability
 3. Ensuring due qualifications
 4. Ensuring monitoring mechanism (space agency)



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3



1. State responsibility ...

- Art. VI, OST, requires “authorisation & continuing supervision” with regard to “national activities in outer space”
- Policy choices scope licensing regime:
 1. Only activities of nationals
 2. Only activities from national territory
 3. Both activities of nationals & from nat’l territory
 - Various exceptions – e.g. in case of possibility multiple licensing authority



... & national space laws

■ Divergence in practice

- **United Kingdom & Hong Kong:** nationals
- **Australia:** territory (essentially: 4 types!)
- **Russia, Ukraine, Sweden:** territory & nationals
- **S Korea, Netherlands, Belgium:** territory; nationals only in (different) special cases
- **USA:** territory & nationals (launching); both + 'control' (remote sensing); territory (satcom)
- **S Africa, France:** territory & nationals (launching); nationals (other space activities)



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5



2. State liability ...

- Art. VII, OST & Liability Convention make “launching state(s)” liable for damage caused by space object
 - Absolute liability for damage caused on earth
 - ↔ Fault liability for damage caused in space
 - Alternative criteria for qualifying as launching state: launch, procurement, territory, facility
 - Without principled limit to compensation
 - ➔ National derogation *vis-à-vis* private operators



... policy options ...

■ Various policy choices for licensing:

- Issue 1: reimbursement proper
 - ◆ Unlimited? → problems for private party
 - ◆ Limited? → state *de facto* partial insurer
 - Fixed limit? Flexible limit? *Ad hoc* determination?
- Issue 2: insurance
 - ◆ Obligatory = imposing burdens upon private party
 - To a limit? Same limit of liability, if indeed limited?
 - Also if liability unlimited?
 - ◆ Optional → allow for betting the company ...
- Or leave it to individual decisions / negotiations



... & national space laws (1)

- Divergence in practice on liability
 - **USA:** MPL, with max. max. of US\$ 500 M
 - ◆ From Pegasus US\$ 10 M to Delta 4-M US\$261 M
 - **Australia:** MPL, with max. max. of A\$ 750 M
 - **France:** € 50-70 M
 - ◆ So far only Arianespace € 60 M
 - **Austria:** max. € 60 M
 - **S Korea:** max. 200 B SKWon
 - **Others:** no specific reference to an amount; some suggest limitations, others do not



... & national space laws (2)

- Divergence in practice on insurance
 - **USA, S Korea, France, Netherlands, Austria:** obligatory, up to liability cap
 - **Russia:** obligatory, in principle up to – non-determined – cap in spite of unlimited liability
 - **Ukraine, Brazil:** obligatory, cap t/b established
 - **United Kingdom:** obligatory up to £ 100 M
 - **Australia:** depends on type of license
 - **Sweden, Hong Kong, S Africa, Belgium:** optional



3. Due qualifications ...

- Technical & economic – for safety & liability-related purposes
 - Incl. on-site inspection; power to stop activities
- Usually inserted in license:
 - Compliance with public health & safety demands
 - Compliance with international policy interests & with international law binding upon state
 - Increasingly: provisions on ‘after life’ handling, e.g. disposal of near-defunct satellites



... & national security ...

- National security also through license
- Some special cases / aspects:
 - **USA, France:** foreign involvement launch providers & EO operators separately controlled
 - **Russia, Ukraine:** fundamental roles DoD
 - **UK:** defense agency for technical assessment
 - Specific national law on (VHR) remote sensing:
 - ◆ **USA:** 'shutter control' → 'buy-to-deny'; 'Israel-clause'
 - ◆ **Canada, Germany:** power to 'take control'



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11



... & *non-space* law, too

- Export controls, in particular, as *i.a.* applied to space products & services
 - National example: US ITAR
 - ◆ Complicated system – ITAR *versus* EAR
 - ◆ All satellite technology = subject to ITAR
 - ◆ ‘Technology’ incl. services, training, know-how...
 - International example: EU Regulations
 - ◆ Since Reg. 1334/2000 in particular
 - ◆ Export controls still largely on national level, however
 - ◆ Exceptions for ESA-project-related exports



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12



4. Monitoring agency

- Providing national (space) agency with monitoring & enforcement powers
 - Existing agencies endowed with powers
 - ↔ Specifically established agencies
 - Monitoring powers
 - ◆ Inspection of sites, facilities, records
 - ◆ Stopping ongoing activity / demanding specific action
 - Enforcement powers: sanctions & penalties
 - ◆ From suspension / cancellation of license to criminal liability / impositions of fines / imprisonment



New security development

■ Background

- Space *versus* security – COPUOS *versus* COD
 - ◆ 1967 Outer Space Treaty: space activities cf. int'l law, maintaining int'l peace & security, promoting int'l coop & understanding – & *no* stationing WMD
 - ◆ Hague Code of Conduct Ballistic Missile Proliferation
 - ◆ Space Situational Awareness
- EU moving into 'security arena' – & 'into space'
 - ◆ Cf. Common Foreign & Security Policy; Galileo, GMES
- Russo-Chinese draft treaty on de-weaponization
 - ◆ Definition 'weapon' ↔ space objects ...



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14



EU Code of Conduct (1)

■ ... for Outer Space Activities

- 1st version 2008, discussion, 2nd version 2010
- USA 'on the fence'
- Aimed at strengthening security space activities
 - ◆ 'Physical security' – in context of intentional & unintentional threats
 - ◆ 'Economic security' – dependence on space infrastructure
 - ◆ 'Environmental security' – long-term sustainability human habitat



EU Code of Conduct (2)

■ Objectives

- Greater transparency & better information exchange → TCBMs
- Development set of 'best practices'

■ Ruling principles

1. Freedom access space for peaceful purposes
2. Preservation security & integrity space objects
3. Due consideration legitimate defence interests



EU Code of Conduct (3)

- Calls for (*i.a.*):
 - Commitment to minimising possibility ***unintended*** collisions / interference in space
 - Commitment to abstain from ***intended*** collisions
 - ... “Unless such action is conducted to reduce creation space debris and/or is justified by inherent right of self defence or imperative security considerations”
 - Flanking measures
 - ◆ Adoption relevant national policies & procedures; notification scheduled manoeuvres, intended launches, high-risk re-entries & malfunctioning space objects



Current assessment

- Does not so much *limit* any military operations in outer space beyond existing obligations as provide for practical tools & political pressure to create more awareness & understanding → really a TCBM itself
- Value: glass half-empty or half-full?
 - Soft law / customary international law



Concluding remarks

- Visible recent major trends in international & national space law:
 - Focus on handling private space operators establishment national space laws
 - ◆ Germany, Italy (?), India, Nigeria, ... Japan ?
 - ◆ Not just for monitoring & control, but also for guidance & stimulation (tax breaks; liability sharing & insurance)
 - Focus on practical handling of threats to space security in widest sense – comprehensively
 - ◆ IADC guidelines on space debris; EU Code of Conduct



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19



Thank you!



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20

