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RECHTSANWÄLTE · NOTAR · SOLICITORS

**International Regulatory Aspects of  
Space and Climate Change**

**Parliamentary Space Committee/ ESPI  
27th October 2009**

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## Outline

- Interaction between international law on climate change and law of outer space
- International regulation of outer space
  - EO to combat climate change
  - Satellite governance
  - Remote sensing
  - Access to space information and data
- Regulatory challenges
- Perspectives

## Principles of International Space Law and EO

- Outer Space Treaty 1967 (OST) as *magna carta* of outer space
- Art. I: Province of mankind
- Art. I (2): Exploration and use of outer space = for benefit of all countries
  - All countries equal, irrespective of economic or scientific development
  - Art. III: Freedom of scientific investigation, includes EO
- GA Declaration 1996: goals of international cooperation to promote space technology and applications
- Existence and use of satellites for peaceful purposes legitimate

## Regulatory Tool for Outer Space Regime is State Responsibility

- Of five main space treaties
  - Registration and Liability predominant (LIAB 1972, REG 1975)
  - State (agency) monitoring and mandatory registration of space objects
- Identification of space objects (liability in event of damage, return)
- Arts VI Outer Space Treaty
  - States responsible for both private and public sector
  - Duty to regulate (includes licensing RS)
- Art VII Outer Space Treaty
  - States liable for private and public sector

## Traditional Liability Regimes linked to Damaging Event

- Art VII OST - States liable for damage from space objects
  - Rules on space debris mitigation
- International liability for environmental damage
  - Precautionary principle /Prevention principle /Polluter pays principle
- Inter-generational equity
- GHG = damage from persistent deterioration, not single event
- UNFCCC/ETS = internalises environmental burden
  - Cost sharing between states and industry

## Information on Climate Change from Outer Space

- Information from space applications
  - Data exchange in international agreements
  - E.g. Tampere Convention (Disaster Convention) –
    - Concerted telecom resources for disaster mitigation /supply of spatial information
  - UN Convention on Access to Information 1998

## Remote Sensing

- UN Remote Sensing Principles 1986
  - Not international treaty
  - Non-binding UNGA Resolution 41/65
- Principle I definition very narrow
  - Primary data; processed data; analysed information
  - Inapplicable to private players/ military
- Access to data for sensed state on non-discriminatory /reasonable cost terms
  - Recognition of sovereign rights over own geodata
- Divergences in working definitions of RS via à vis some national RS laws

## EO at European and EU level

- ESA Convention 1975
  - Optional activities, including satellite systems
- EUTMETSAT Convention, amended 2000 (operating through ESOC)
  - Meteorological satellites, detection of global climatic changes
- EU competence in environmental area and transport
  - GMES (Global Monitoring for Environment & Security)
  - Galileo (Global Navigation Satellite System)
  - Extended space competences under Lisbon Treaty
- Use of EO data as evidence in legal proceedings (land use and emissions)



## EO Data Access: Law and Policy

- Role of spatial information in global GIS
- Envisat Data Policy 1998
  - ESA ownership and title to use of intellectual property
  - Non-exclusive licensing scheme
  - Data distribution scheme (Category 1 and Category 2 use)
- EUTMETSAT
  - Latest Resolution on Access 2008
  - Data sets provided free to WMO members
  - Fee structure

## Regulatory Dichotomy: Sovereignty and Access

- Encouraging data pooling through projects and agreements
- Effect of national space statutes limited
  - to own nationals
  - to foreigners in jurisdiction
  - or own nationals world wide
- Some statutes regulate highly sensitive data only (SatDSiG 2007)

## EO Data Access - Freedom of Information on Climate Change

- Ownership and use of data
- State custodianship v open record laws (Australia v USA)
  - No copyright in data, but government 'title' to satellite conceded
  - US Landsat Programmes ('92) /Commercial Remote Sensing Policy 2003
- Europe/ EU – IPR of state agencies on products generated
  - Information, documents or records held by public authorities
  - GeoData Portal – EU INSPIRE Directive –
  - Re-use of PSI 2003; Public Access to Environmental Info 2003.

## Regulatory Challenges - Small Satellites

- Increased technical capabilities of small satellite constellations
- Not yet fully registered under ITU system
- Increased capability for future
- Key tool for EO and climate change
- Compliance with national /international governance regime

## Perspectives

- Satellite governance
- EO for monitoring climate change legitimate
- Space data policy implicates:
  - Increased data sharing and access
  - Cost reduction
  - Alignment of IP licensing
  - Special clauses in fp7 (right of access and use for Community purpose)
- Investment
- Space applications as key technology for future compliance with UNFCCC



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