

# **International Space Law**

International Satellite Communication Symposium (Geneva, 13-14 June 2016)

Prof. Dr. Mahulena Hofmann SES Chair in Space Communications and Media Law University of Luxembourg



## I. Introduction



## ITU (Article 1 Constitution):

allocation of frequency bands to services,

allotment of frequences to member states, registration of frequency assignments to the stations;

registration of orbital positions in the GSO, characteristics of satellites in other orbits

to avoid HI between radiostations of different countries.

## UN Copuos (GA Resolution 1472/IVX 1959):

review areas of international cooperation study legal problems connected with the use of outer space.

### Result: 2 legal regimes for a communication satellite

- 1. ITU: registration of frequency bands and orbits for the radio stations;
- 2. UN legal framework: registration, prohibition of harmful interference with activities of other States, authorization

## II. History of the UN Legal Framework

1958 Soviet proposal to the USA (demilitarization, control, UN agency, equity)

1958 US Proposal to UN (ad hoc Committee)
1958 establishing the ad hoc commitee
1959 permanent COPUOS: 7s:12w:5n
1959 Soviet proposal: complete disarmament
1959 Antartic Treaty (disarmament of Antartica)
1961 2 SCs (Legal, Technical).



1963 Treaty Banning Nuclear Weapons Test in the Atmosphere, in Outer Space and under Water

1963 Declaration of Legal Principles Governing the Activities of States in the Exploration and Use of Outer Space, UN Res. 1962 (XVIII)



# **III. UN Treaties: binding for States**

1967 Outer Space Treaty1968 Rescue Agreement1972 Liability Convention1975 Registration Convention1979 Moon Agreement



# 1967 UN Outer Space Treaty

1962 Soviet proposal, demilitarization, 1965 US proposal, 1967 text completed

- Territorial scope?
- Province of mankind (art. I)
- Freedom of exploration (art. I)
- Prohibition of national appropriation (art. II)
- Application of international law (art. III)
- No weapons of mass destruction in orbit (art. IV)
- No military use of celestial bodies (art. IV)
- Astronauts: envoys of mankind (art. V)



- Responsibility for national activities (art. VI), authorization of non-state entities
- Liability for damage (art. VII)
- Retaining of jurisdiction (art. VIII)
- Due regard, harmful interference, environment (art. IX)
- Observation (art. IX)
- Information the UN Secretary-General (art. XI)
- Visits of installations (art. XII)
- Settlement of disputes (art. XIII).

## 1968 Rescue Agreement

- Rescue of and assistance to aircraft and vessels in distress and their personnel
- UdSSR and US proposals
- Adoption 1967, in force 1968, 90 parties
- Scope: personell ? space tourists?
- Rescue in space ?
- Space objects: upon request?
- Costs: of return of objects, but astronauts?



# **1972 Liability Convention**

### I. Contents:

- enlarging national liability systems
- inter-state relations (UdSSR x Canada)
- damage to property or persons
- **absolute** liability for damage on earth and aircraft in flight
- **fault** liability for damage on satellites in orbit



### II. Procedure:

- joint and several liability for damage to third state: according the fault; divided equally; right to seek the entire compensation (Art IV)
- joint launching: always the launching state; agreements on apportioning the financial obligation (Art V)
- claim for compensation (Art VIII) to States and IOs.

## **1975 Registration Convention**

- predecessor: 1962 UN Resolution
- "Launching State" (Art I)
- "Space Object" (Art I)
- "National Registry"
- UN Register



When? Name, data, terriroty, orbital parameters, function

- debris (Art IV.3)
- identification of space object
- IOs

-

http://www.oosa.unvienna.org/oosa/en/SORegister/docsstatidx.html

# 1979 Moon Agreement

- Art. 1: Territorial scope: Moon and other celestial bodies
- Art. 2: Validity of international law
- Art. 3: Use exclusively fo peaceful purposes
- Art. 4: Province of mankind
- Art. 5: Principle of information
- Art. 6: Samples, support of missions
- Art. 7: Protection of environment
- Art. 8: Freedom of exploration
- Art. 9: Stations on the Moon
- Art. 10: Astronauts
- Art. 11: Common heritage of mankind: International regime
- Art. 12: Jurisdiction and control
- Art. 13: Crash landing
- Art. 14: International responsibility
- Art. 15: Monitoring
- Art. 16: IGOs
- Art. 17 21: Amendments, Revision, Withdrawal, Deposit.





# IV. UN Resolutions: recommendatory

1962 UN Declaration of Legal Principles
1982 Direct Broadcasting Principles
1986 Remote Sensing Principles
1992 Nuclear Power Sources Principles
1996 UN Declaration on International Cooperation
2007 Space Debris Mitigation Guidelines
.....registration, national legislation,....

## **1982 Direct Broadcasting Principles**

- Sovereign rights
- Applicability of international law
- Equal rights of States
- International cooperation
- Settlement of disputes
- State responsibility
- Duty to consult
- Copyright
- UN Notification
- Consultations
- Overspill





## **1986 Remote Sensing Principles**





- I. Definitions
- II. Interest of all countries
- III. International law
- IV. Sovereignty
- V. Cooperation
- VI. Agreements
- VII. Technical assistance
- VIII. Role of the UN
- IX. Information of the UN Secretary General
- X. Protection of environment
- XI. Disputes

## **1992 Nuclear Power Sources Principles**

- 1. International Law
- 2. Use of terms
- 3. Guidelines for safe Use-
- general goals
- Nuclear reactors
- Radioisotope generators
- 4. Safety Assessment
- 5. Notification of reentry
- 6. Consultations
- 7. Assistance
- 8. Responsibility
- 9. Liability
- 10. Settlement of disputes
- 11. Revision







## 2007 Space Debris Mitigation Guidelines

Endorsed by UNGA by res. 62/217 22 December 2007 "voluntary"

- 1. Debris in framework of a normal operation
- 2. Minimizing break-ups
- 3. Limiting accidental collissions
- 4. No intentional destructions
- 5. Stored energy
- 6. LEO
- 7. GEO.





## V. Conclusion

2 international regimes

Consequences for operators: have to register twice

I. National Regulatory Agency (frequency bands, orbits)

II. UN:

- 1. National register of space objects (main purpose, orbits, launching State)
- 2. Authorization and supervision of the activities of an "entity" by State, conditions?
- 3. In case of crash: international rescue of astronauts and space objects
- 4. In case of damage: the launching State is liable; reimbursement and insurance in license/ agreement

In sum: two sets of obligations, but also two sets of guarantees.



## Annex I: Luxembourg as Party of the Treaties

- Luxembourg is State Party of
   1963 Bann of Nuclear Weapon Tests Treaty
   <u>1967 Outer Space Treaty</u>: ratified 2005 by Law of 31 July 2005
   <u>1972 Liability Convention</u>: ratified 1983 by Law of 9 June 1983
   <u>1992 ITU Constitution and Convention since 1866</u>
- Signatory to
   1968 Rescue Agreement: signed 1968
- <u>1961 GA Resolution 1721 B (XVI)</u>
- Information on satellites furnished to UN Secretary General in accordance with the 1961 Resolution;
- Luxembourg examines the possibility of establishment of an "appropriate registry" of space objects provided for in Art. II of 1968 Registration Convention as a precondition for accessing the Convention.

## Annex II: Luxembourg: National Regulatory Framework

### 1991 Law on Electronic Media, as amended

#### Article 20(1) of Chapter II(A): Concession

No one can establish and exploit a Luxembourgish satellite system without having first obtained a concession. The concession is granted by the Government, by the proposal of the Minister responsible for telecommunications and for the media.

#### Article 20(3): Specifications

Any concession is accompanied by a book of obligations, whose provisions must be respected at all times by the concessionaire.

#### Article 20(7) Provisions to be included in the Specifications

(b) The activities that must be carried out in the territory of the Grand-Duchy;

(d) Monitoring of the activity of the concessionaire by one or more government commisioners.

2005 Law on the Organization and Management of RF Spectrum, as amended 2013 L.i.R. Regulation regarding the Frequency Plan