

# UNOOSA CAPACITY-BUILDING PROGRAMME ON SPACE LAW

UN/Thailand Workshop on Space Law Bangkok, Thailand 16-19 November 2010

Niklas Hedman, UNOOSA



# **UNOOSA** capacity-building programme on space law

Series of Space Law Workshops: 2002 in The Netherlands; 2003 in the Republic of Korea; 2004 in Brazil; 2005 in Nigeria; 2006 in Ukraine; 2009 in Iran; 2010 in Thailand

**Space Law Website:** 

Treaty status database and national space legislation database Bilateral and multilateral agreements database Directory on education opportunities in space law

Technical legal assistance, including on UN Register

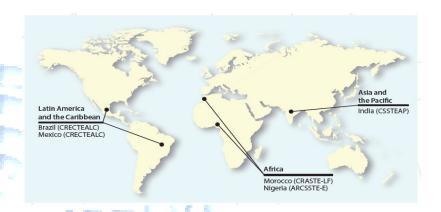
**Development of curriculum on space law for Regional Centres** 



# **Regional Centres**

Four Regional Centres for Space Science and Technology Education, affiliated to the United Nations

- www.cssteap.org (Centre in India)
- www.enssup.gov.ma/craste (Centre in Morocco)
- www.arcsstee.org (Centre in Nigeria)
- www.crectealc.org (Centre in Mexico/campus)
- www.inpe.br/unidades/cep/atividadescep/crectealc (Brazil campus)



# Education curricula and education modules have been developed for:









- In preparation: Space Law, GNSS



# **Regional Centres**

# Core disciplines (9 month postgraduate courses):

Remote Sensing and Geographic Information Systems
Satellite Communications
Satellite Meteorology and Global Climate
Space and Atmospheric Sciences

Two further disciplines:
GNSS
Space Law



# **Curriculum on Space Law**

Two complementary structures of modules:

**Module 1** 

- all the fellows irrespective of course being taken

Module 2 through 5

- module directly relevant to course being taken by the fellows



### Structure of the Curriculum

Module 1: Basic concepts of international law and space law

Module 2: International law and other regulations applicable to remote sensing and geographic information systems; satellite meteorology and global climate

Module 3: International law and other regulations applicable to satellite communications

Module 4: International law and other regulations applicable to space and atmospheric sciences

Module 5: International law and other regulations applicable to global navigation satellite systems (teaching module under development)



# **Module 1: Basic Concepts of International Law and Space Law**

- Introduction to international law
- International space law treaties and Principles and other relevant topics (1721B, radio frequencies and GSO etc)
- Important concepts specific to space law
- National regulation of space activities
- Commercial and private use of outer space
- Multilateral and bilateral agreements
- International intergovernmental organisations related to space activities (COPUOS, ITU, International satellite organisations)
- Settlement of disputes



# Module 2: Remote sensing & GIS and Satellite Meteorology and Global Climate

- International space related (OST, RS Principles, UN-SPIDER, WMO, Space Benefits Resolution, etc)
- National space related (Canada, France, Germany, USA, etc)
- Global (Protection of Ozone Layer Convention, Montreal Protocol, Kyoto Protocol, etc)
- Bilateral and Multilateral Agreements
- Sources of Data (Civil government systems, Private commercial systems, Public-Private Partnership commercial systems, Databases, Archives)



### **Module 3: Satellite Communications**

- Radio frequencies and orbital positions
- International and national regulations
- ITU Constitution, Convention and Radio Regulations
- Selection of appropriate radio frequencies and orbital positions
- Harmful interference and resolution of interference
- National laws and regulations, technical standards
- National licensing and regulation of operation of satellite services
- World Trade Organization regulations, Global Mobile Personal Communication Services (GMPCS) procedures, regulation of direct satellite broadcasting contents



# **Module 4: Space and Atmospheric Sciences**

- Basic Concepts (Institutions, General Principles, International Cooperation)
- International Legal Regime Governing the Conduct of Space Activities (Radiocoms, Earth Observation, NPS, Liability, Ethics)
- International Legal Status of the Extraterrestrial Cosmic Environment (preservation of unique environment)
- Freedom of Space Exploration and Research, International Protection of Scientific Results and Data
- International Co-operation in Space Exploration and Research (UNESCO, WMO, COSPAR, IAU, IAF, IAA)
- Bilateral and Multilateral Space Co-operation Agreements



## **Module 5: GNSS**

- GNSS Technology, Dual Use Technology, Augmentation of GNSS
- Different Classes of GNSS Services (Standard, Precise)
- GNSS Institutions (Int'l, National)
- Legal Regimes (Int'l, National)
- GNSS Providers (US, Russian Federation, Europe, China, India and Japan)
- GNSS Legal issues (continuity, financing, universal access, sole use etc), Legal Rights of Privacy, Legal Protection of GNSS Data
- International Trade Issues



# Resources

# List of resources in the public forum

- Text books
- Other references and resources

# Languages

- English
- French
- Spanish
- Other official languages of the United Nations



# **THANK YOU!**

Office for Outer Space Affairs
United Nations Office at Vienna

Email: oosa@unoosa.org

Tel: +43-1-26060-4950

Fax: +43-1-26060-5830

Website: www.unoosa.org

